IRPL-F19

IONOSPHERIC DATA

ISSUED

MARCH, 1946

PREPARED BY INTERSERVICE RADIO PROPAGATION LABORATORY
National Bureau of Standards
Washington, D.C.

IRPL-F 19 INTERSERVICE RADIO PROPAGATION LABORATORY
NATIONAL BUREAU OF STANDARDS
WASHINGTON, D.C.
Issued 20 Mar. 1946

Organized under Joint U.S. Communications Board

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TERMINOLOGY AND SCALING PRACTICES

The symbols and terminology used in this report are those adopted by the International Radio Propagation Conference, and given in detail on pages 24 to 26 of the report IRPL-C61, "Report of International Radio Propagation Conference," and in the Section on "Terminology," in reports IRPL-F1, 2, 3, 4, 5.

Beginning with data reported for September, a new symbol L, defined as follows, is adopted for use in detailed tabulations of hourly values of ionosphere characteristics observed at Washington:

> L or l = critical frequency, muf, or muf factor for F1 layer omitted because no definite and abrupt change in slope of the h'f curve occurs either for the first reflection or for any of the multiples. (See "Report of International Radio Propagation Conference," IRPL-C61, June 1944, VI 3c, p.37).

In the past, ionospheric conditions were summarized on a monthly basis by using average or mean values, for each hour of the day, for each month. However, following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, beginning with data for 1 Jan. 1945, median values were used by IRPL wherever possible. Thus, median values are given for Washington, for all stations reporting directly to the IRPL, for the Canadian stations, and for all others sending in detailed tabulations to the IRPL, from which medians can be computed.

Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data existed.

The monthly median values used here are the values equalled or exceeded on half the days of the month at the given hour. The following conventions are used in determining the medians for hours when no measured values are given, because of equipment limitations and ionospheric irregularities. Symbols used are those given in the report referred to above, IRPL-C61.

a. For all ionospheric characteristics:
Values missing because of A, B, C or F (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights:
Values missing because of E are counted as equal to or less than the lower limit of the recorder.
Values missing because of D are counted as equal to or greater than the upper limit of the recorder.
Values missing because of G are counted:
1. For $f^{o}F2$, as equal to or less than $f^{o}F1$.
2. For h'F2, as equal to or greater than the median.
Values missing for any other reason are omitted from the median count.

c. For muf factors (M-factors):
Values missing because of G are counted as equal to or less than the median.
Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):
Values of fEs missing because no Es reflections appeared, the equipment functioning normally otherwise, are counted as equal to or less than the lower limit of the recorder.
Values of fEs missing for any other reason, and values of hEs missing for any reason at all, are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D.C., are indicated by a parenthesis, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, no median value is computed, the data being considered insufficient.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, so long as there are at least five values, the median is not considered as doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

It is expected that this practice will be of assistance in evaluating the monthly median Washington data.

MONTHLY AVERAGE AND MEDIAN VALUES OF IONOSPHERIC DATA

The ionospheric data given here in graphical and tabular form were assembled by the Interservice Radio Propagation Laboratory for analysis and correlation, incidental to IRPL predictions of radio propagation conditions. The following are the sources of the data:

Australian Council for Scientific and Industrial Research, Radio Research Board, Australia:
- Brisbane, Australia
- Canberra, Australia
- Cape York, Australia

British National Physical Laboratory, and Inter-Services Ionosphere Bureau:
- Slough, England
- Great Baddow, England
- Burghead, Scotland
- Capetown, Union of S. Africa
- Colombo, Ceylon
- Oslo, Norway
- Cairo, Egypt
- Hobart, Tasmania
- Falkland Is.

Canadian Radio Wave Propagation Committee:
- Churchill, Canada
- Ottawa, Canada
- St. John's, Newfoundland
- Prince Rupert, Canada
- Clyde, Baffin I.

New Zealand Radio Research Committee:
- Kermadec Is.
- Christchurch (Canterbury University College Observatory)
- Campbell I.
- Pitcairn I.
- Rarotonga I.

Scientific Research Institute of Terrestrial Magnetism, Moscow, U.S.S.R.:
Bukhta Tikhaya, U.S.S.R.
Tomsk, U.S.S.R.
Sverdlovsk, U.S.S.R.
Moscow, U.S.S.R.
Leningrad, U.S.S.R.
Alma Ata, U.S.S.R.

Carnegie Institution of Washington (Department of Terrestrial Magnetism):
Christmas I.
Fairbanks, Alaska (University of Alaska, College, Alaska)
Maui, Hawaii
Trinidad, Brit. West Indies
Huancayo, Peru
Watheroo, W. Australia

United States Army Signal Corps:
Leyte, Philippine Is.
Guam I.
Adak, Alaska
Tokyo, Japan

National Bureau of Standards:
Washington, D.C.

Stanford University:
San Francisco, California

Louisiana State University:
Baton Rouge, Louisiana

University of Puerto Rico:
San Juan, P.R.

Harvard University:
Boston, Massachusetts

All India Radio (Government of India), New Delhi, India:
Bombay, India
Delhi, India
Madras, India
Peshawar, India

Ministry of Information - Republic of China:
Chungking, China

National Wuhan University:
Loshan, China

The tables of "provisional data" give values as reported to the IRPL by telephone or telegraph. Any errors in these values will be corrected in later issues of the F-series reports. In final data tabulations, any omission of values previously given in provisional tabulations is indicated by a dash.

The tables and graphs of "final data" are oorrect for the values reported to the IRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of these errors are due to:

a. Differences in scaling records where spread echoes are present.

b. Omission of values where $f^{o}F2$ is less than or equal to $f^{o}F1$, leading to erroneously high values of monthly average or median values.

c. Omission of values where critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series reports, IRPL-F1, 2, 3, 4, and 5. Discrepancies between predicted and observed values are often ascribable to these effects.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given under "Terminology and Scaling Practices" above.

IONOSPHERE DISTURBANCES

Table 100 presents ionosphere character figures for Washington, D.C., during February 1946, as determined by the criteria presented in the report IRPL-R5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

Table 103 gives provisional radio propagation quality figures for North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, January 1946, compared with the IRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, and ISIB daily warnings, the IRPL semiweekly radio propagation forecasts for the A-zone, and the half-day American geomagnetic K-figures.

The radio propagation quality figures for the North Atlantic were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R31, "North Atlantic Radio Propagation Disturbances October 1943 through October 1945", issued 1 Feb. 1946.

The radio propagation quality figures for the North Pacific were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R13, "Ionospheric and Radio Propagation Disturbances, October 1943 through February 1945", issued 24 May 1945.

VARIATION AND PREDICTION OF F1-LAYER CRITICAL FREQUENCIES

The variations of F1-layer critical frequencies with solar activity, season, time of day and geographical location are much simpler and more regular than those of F2-layer critical frequencies, discussed in previous issues of this report (Cf IRPL-F15, 16, and 17), and nearly approximating in simplicity the variations in E-layer critical frequencies, discussed in the last issue of this report, IRPL-F18.

As is the case with all critical frequencies of the regular ionospheric layers, their variation with solar activity is such that for any hour of day, at any location, there exists an approximately linear relationship between the twelve-month running-average $f^{o}F1$ and the corresponding twelve-month running-average sunspot number. The slopes of the linear trends between $f^{o}F1$ and the twelve-month running-average sunspot number are, in general, intermediate between those of corresponding trends for the E and F2 layers. (Cf. IRPL-R26, "The Ionosphere as a Measure of Solar Activity").

Figs. 93 and 94 present the latitude variations of yearly-average noon $f^{o}F1$, as derived from such solar-activity trend curves, for those ionosphere stations in operation for a sufficient time that the trends seem reliable. Effective extension of the available data is attained by using them both at their proper latitudes and at the corresponding reversed latitudes, where the location of the latitude-variation curve may then be estimated. In general, the data for these latitude-variation curves of $f^{o}F1$ are not as precisely known as those for corresponding curves of $f^{o}E$ and $f^{o}F2$, since in polar and temperate latitudes, there sometimes may be little or no separation of the F2 and F1 layers during winter months; this results in considerable time periods over which no twelve-month running-average data are obtainable. Because of their lower precision, the latitude-variation curves of $f^{o}F1$ presented here are estimated for a somewhat more limited range of latitudes than the range presented for similar curves of $f^{o}E$ and $f^{o}F2$ in previous issues of this report.

It may be noted by inspection of Figs. 93 and 94 that, as for $f^{o}E$, no pronounced longitude effect seems to exist, although there is consistent difference between data for the northern and southern hemispheres, as is shown by the difference between sets of points plotted at true and at reversed latitudes.

Figs. 95, 96, and 97 present the latitude variation of the ratio of monthly-average to yearly-average $f^{o}E$ for the months of June, September, and December, respectively, these being typical of conditions for summer solstice, equinox, and winter solstice. As in the case of the E layer, seasonal effects, as given by these ratios, seem relatively constant with respect to solar activity. Data for the solstice months seems to exhibit consistent differences between northern and southern hemispheres, as shown by the difference between data plotted at true latitude, and that for the opposite season plotted at reversed latitude.

Inspection of the latitude variation curves of $f^{o}F1$, Figs. 93 and 94, as well as the curves of seasonal effect, Figs. 95, 96, and 97, shows that F1-layer critical frequencies are very closely related to solar position, although not as closely as are E-layer critical frequencies. The yearly-average $f^{o}F1$ attain a maximum near equatorial regions, although it is to be noted that the curves are not symmetrical with respect to the equator, - an effect which seems consistently borne out by the data from several ionosphere stations of long standing. The seasonal effect is similar to that for $f^{o}E$, the ratio of monthly-average to yearly-average $f^{o}F1$, being nearly unity for equinoctial times, and gradually increasing from north to south in winter, reversing this behavior for the opposite season.

That the variation of $f^{o}F1$ is no simple function of solar declination is shown by the nomograms, Figs. 98 through 109, which present the latitude variation of noon $f^{o}F1$, for each month, throughout the solar cycle. If such a simple relationship with solar declination existed, as is discussed by S. Chapman ("The Absorption and Dissociative or Ionising Effect of Monochromatic Radiation in an Atmosphere on a Rotating Earth," Proc. Roy. Soc. London 43, p.26 and 483, 1931) the central latitude-variation curves of these nomograms would fold back upon themselves at the latitude of the sun's declination, for each month. Poor approximation to such behavior is shown by the data for winter months, and worse for summer months. It is interesting, however, that these nomogram curves of latitude-variation exhibit a general shifting of latitude points around a curve, from summer to winter, the width of the area enclosed by the curve being greater for summer months. The fact that portions of this curve approximate a straight line shows that the relationship between $f^{o}F1$ and sunspot number, for a given time of day and season, is of the type

$$f^{o}F1 + C = Af(\ell)(S + B)$$

over these portions, where S is the sunspot number, $f(\ell)$ is a function of latitude, and A, B, and C are constants, for any straight-line portion of the curve, varying if the straight line changes. The opposition in slope between extreme southern and northern regions, particularly manifest in the nomograms for summer months, is interesting. The nomogram mathematically indicates for both latitude ranges the relatively simple condition expressed by the above equation, where solar activity variations of $f^{o}F1$ at any latitude may be characterized by a multiplicative function of latitude. The difference between the constants pertinent to each slope implies application of the multiplicative latitude functions for each slope to one or the other of

two basic ionosphere conditions, each constant for all latitudes within the region where the curve possesses a constant slope. One of these basic conditions is characterized by a high degree of ionization, at a high sunspot number, the other by a very low degree of ionization, at values of solar activity so low that the corresponding "sunspot number" is, in general, negative.

The diurnal variation of $f^{o}F1$ at any location, for any season, seems approximately independent of solar activity. This enables practical use to be made of the accompanying nomograms, Figs. 98 through 109, in the prediction of F1-layer maximum usable frequencies. If an estimate be made of solar activity, in terms of smoothed sunspot activity, for the time for which prediction is desired, the corresponding noon $f^{o}F1$, for any location may be obtained by use of one of these nomograms for the appropriate month. The value at any time of day for this location may be obtained by multiplying this value by the ratio of F1-layer 2000-mile muf for the corresponding time and location, to the noon value for the same place, as determined from the predicted chart of F1-layer 2000-mile muf for the appropriate month, as given in the IRPL reports "High Frequency Radio Transmission Conditions", issued 10 Sept. 1943, with prediction charts of F1-layer 2000-mile muf for September through December 1943, and "Radio Propagation Conditions," 14 Oct. 1943 through 7 Aug. 1944, with prediction charts of F1-layer 2000-mile muf for later months, through November 1944. For the months of September, October, and November, better values will be obtained from the later charts issued in "Radio Propagation Conditions," June, July, and August 1944, since these were based upon more comprehensive data than were previously issued charts for the same months.

Multiplication of the predicted $f^{o}F1$ by 3.9, an approximately constant value of F1-layer maximum-usable-frequency factor for a transmission distance of 2000 miles, gives the F1-layer maximum usable frequency for a 2000-mile transmission distance, from which the muf for other distances may be obtained by use of the nomograms, Figs. 40, 41, and 42, of the IRPL Radio Propagation Handbook, Part 1.

Because of the similarity in behavior of $f^{o}E$ and $f^{o}F1$, and the somewhat greater accuracy obtainable in predictions of the former quantity, it has been recommended, in order to save both time and labor, to obtain an approxiate maximum usable frequency, for operational use, of the combined effects of both layers, by applying adjusted maximum-usable-frequency factors to E-layer predictions alone. (Cf methods outlined in pp.42-46, IRPL Radio Propagation Handbook, Part 1, and in reports of the IRPL-D series.)

ERRATUM

The median values of $f^{o}F2$, for Ottawa, for October 1945 (IRPL-F16) were in error at certain hours. The corrected values are:

Time	$f^{o}F2$
1100	8.6
1200	8.8
1300	9.2
1400	9.2
1500	8.9

Table 1 (Provisional Data)

Churchill, Canada (58.8°N, 94.2°W) February 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		3.4						2.9
01		3.8						2.8
02		3.2						2.9
03		3.4						2.8
04		3.6						2.8
05		3.4						3.0
06		3.4						2.8
07		3.8						3.0
08		4.7						3.2
09		5.3						3.1
10		6.0						3.1
11		6.9						3.1
12		7.5						3.0
13		8.2						3.1
14		8.8						3.0
15		9.2						3.0
16		8.6						3.1
17		7.7						3.0
18		6.0						3.0
19		5.2						2.9
20		4.8						3.0
21		4.0						2.9
22		3.5						2.9
23		3.8						2.9

Time: 90.0°W.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 2 (Provisional Data)

Prince Rupert, Canada (54.3°N, 130.3°W) February 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		2.5						3.2
01		2.5						3.2
02		2.3						3.0
03		2.4						3.1
04		2.4						3.0
05		2.3						2.9
06		2.4						3.0
07		3.1						3.1
08		4.2						3.4
09		5.5						3.5
10		6.4						3.5
11		7.2						3.5
12		7.7						3.5
13		8.2						3.4
14		8.5						3.5
15		8.8						3.5
16		8.5						3.6
17		7.9						3.6
18		7.0						3.6
19		5.9						3.6
20		4.3						3.6
21		3.3						3.4
22		2.9						3.3
23		2.5						3.4

Time: 120.0°W.
Length of time sweep: Manual operation.
Median values.

Table 3 (Provisional Data)

St. John's, Newfoundland (47.7°N, 52.7°W) February 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		3.3						3.0
01		3.4						3.1
02		3.2						3.1
03		2.9						3.2
04		3.2						3.1
05		3.1						3.3
06		2.7						3.1
07		3.4						3.1
08		5.8						3.5
09		7.5						3.4
10		8.5						3.3
11		8.7						3.3
12		9.0						3.4
13		9.3						3.3
14		9.2						3.3
15		9.0						3.3
16		9.0						3.3
17		8.7						3.3
18		8.0						3.2
19		7.4						3.2
20		6.0						3.2
21		5.3						3.2
22		4.7						3.2
23		4.1						3.2

Time: 52.5°W.
Length of time sweep: Manual operation.
Median values.

Table 4 (Provisional Data)

Ottawa, Canada (45.5°N, 75.8°W) February 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		3.7						2.9
01		3.7						2.9
02		3.4						3.0
03		3.2						2.9
04		3.2						2.9
05		3.0						3.0
06		2.7						3.1
07		3.9						3.2
08		6.4						3.4
09		7.7						3.3
10		8.1						3.3
11		8.9						3.2
12		9.5						3.2
13		9.6						3.1
14		9.5						3.1
15		9.3						3.1
16		9.3						3.1
17		9.2						3.2
18		8.0						3.2
19		7.3						3.2
20		5.9						3.1
21		5.2						3.0
22		4.7						3.0
23		4.1						3.0

Time: 75.0°W.
Length of time sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 5 (Provisional Data)

Boston, Massachusetts (42.4°N, 71.2°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.2						3.0
01		3.8						2.9
02		3.5						2.9
03		3.6						2.9
04		3.5						2.9
05		3.0						3.0
06		2.6						3.0
07		4.8						3.2
08		5.6						3.2
09		6.7						3.2
10		6.7						3.0
11								
12								
13								
14								
15		8.0						3.1
16		7.9						3.1
17		7.6						3.0
18		7.0						2.9
19		6.5						3.0
20		5.9						3.0
21		5.0						3.0
22		4.8						2.9
23		4.3						2.9

Time: 75.0°W.
Length of time sweep: 0.85 Mc to 13.75 Mc in one minute.
Median values.

Table 6 (Provisional Data)

San Francisco, California (37.4°N, 122.2°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.6						2.8
01		3.6						2.8
02		3.4						2.8
03		3.3						2.8
04		3.3						2.8
05		3.3						2.8
06		3.3						2.7
07		4.8						3.0
08		6.9						3.2
09		8.0						3.1
10		9.0						3.0
11		10.0						3.0
12		10.4						2.9
13		10.2						2.9
14		10.1						3.0
15		9.6						3.0
16		9.2						3.1
17		8.5						3.1
18		7.2						3.1
19		5.1						3.1
20		4.0						3.1
21		3.4						3.0
22		3.2						2.8
23		3.4						2.8

Time: 120.0°W.
Length of time sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on hour.
Median values.

Table 7 (Provisional Data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.5						3.0
01		3.7						2.9
02		3.7						3.0
03		3.6						3.0
04		3.1						3.0
05		3.2						2.9
06		3.1						2.9
07		6.1						3.1
08		8.0						3.2
09		8.4						3.1
10		9.2						3.0
11		9.5						3.0
12		9.5						3.1
13		9.6						3.1
14		9.6						3.0
15		9.6						3.0
16		9.6						3.1
17		9.3						3.1
18		8.0						3.2
19		5.8						3.1
20		4.7						3.0
21		3.9						3.0
22		3.6						2.9
23		3.5						2.9

Time: 90.0°W.
Length of time sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.
Median values.

Table 8 (Provisional Data)

Chungking, China (29.4°N, 106.8°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.9						3.0
01		4.8						3.0
02		4.4						3.1
03		5.0						3.2
04		4.3						3.2
05		4.2						3.3
06		4.1						3.2
07		6.7						3.3
08		9.4						3.4
09		10.0						3.3
10		10.9						3.3
11		12.1D						3.1
12		12.3D						3.1
13		12.8D						3.2
14		12.3D						3.2
15		12.1D						3.3
16		12.1D						3.3
17		11.8D						3.3
18		11.1						3.5
19		11.1						3.5
20		9.5						3.5
21		8.1						3.4
22		8.0						3.3
23		7.0						3.2

Time: 105.0°E.
Length of time sweep: 3.3 Mc to 12.3 Mc in fifteen minutes.
Median values.

Table 9 (Provisional Data)

Maui, Hawaii (20.8°N, 156.5°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	3.5						2.9
01	300	3.8						3.0
02	260	3.6						3.2
03	250	3.2						3.3
04	250	2.4						3.2
05		2.3						3.0
06		2.4						3.1
07	280	4.6						3.0
08	260	8.0				2.6		3.2
09	260	9.3	240			3.1		3.0
10	290	10.9	240			3.4		2.9
11	300	12.0	240	5.0		3.4		2.8
12	300	12.6	230	5.0		3.6		2.8
13	300	13.3	240	5.2		3.7		2.8
14	300	13.6	240	5.0		3.7		2.9
15	290	13.0	240	4.8		3.4		2.9
16	260	12.3	240			3.2	6.2	3.2
17	250	11.2				2.8		3.0
18	240	9.6				2.4		3.2
19	230	7.3						3.2
20	240	5.6						3.1
21	250	5.4						3.1
22	250	5.6						3.0
23	260	4.6						3.1

Time: 150.0°W.
Length of time sweep: 2.2 Mc to 16.0 Mc in one minute.
Median values.

Table 10 (Provisional Data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	6.0					2.2	3.2
01	250	5.4					2.3	3.2
02	240	4.7					3.6	3.1
03	240	3.9					2.3	3.2
04	260	3.2					2.9	2.9
05	280	3.3					2.2	2.9
06	270	3.6					2.1	2.9
07	250	6.8				2.0	2.6	3.3
08	240	8.7	240			2.9	3.4	3.3
09	280	10.2	230	4.7		3.3	4.0	3.2
10	280	11.4	230	5.1		3.6	4.1	3.2
11	280	11.1	220	5.1		3.8	4.4	3.1
12	280	11.0	220	5.2		3.8	4.4	3.1
13	300	10.8	220	5.2		3.8	4.6	3.0
14	300	10.4	220	5.2		3.7	4.6	2.9
15	300	10.5	220	5.3		3.6	4.4	2.9
16	290	10.8	240	4.8		3.3	4.3	3.0
17	260	10.4	240			2.7	4.2	3.0
18	260	10.4					3.6	3.1
19	240	9.0					3.0	3.1
20	220	7.8					3.0	3.1
21	240	6.3					2.4	3.0
22	240	6.6					2.6	2.9
23	260	6.3					2.4	3.0

Time: 60.0°W.
Length of time sweep: Manual operation.
Median values.

Table 11 (Provisional Data)

Clyde, Baffin I. (70.5°N, 68.6°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.5						3.2
01		2.2						3.2
02		2.4						3.2
03		2.4						3.4
04								3.4
05								3.3
06								3.3
07		2.6						3.3
08		3.1						3.4
09		3.9						3.3
10		3.9						3.4
11		4.0						3.3
12		4.3						3.4
13		4.8						3.4
14		4.6						3.4
15		4.6						3.4
16		4.4						3.3
17		4.2						3.3
18		3.6						3.4
19		3.1						3.4
20		3.0						3.4
21		2.7						3.3
22		2.6						3.2
23		2.8						3.2

Time: 75.0°W.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 12 (Provisional Data)

Burghead, Scotland (57.7°N, 3.5°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.3						
01		2.1						
02		2.3						
03		2.3						
04		2.5						
05		2.4						
06		2.5						
07		2.3						
08		3.2						
09		4.9						
10		6.0						
11		6.5						
12		6.8						
13		7.1						
14		6.7						
15		6.3						
16		5.9						
17		5.3						
18		4.0						
19		3.2						
20		2.6						
21		2.4						
22		2.3						
23		2.1						

Time: 0.0°.
Length of time sweep: 1.0 Mc to 13.0 Mc. Manual operation.
Average values.

Table 13 (Provisional Data)

Great Baddow, England (51.7°N, 0.5°E) January 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		2.7						2.9
01		2.6						2.9
02		2.7						2.9
03		2.6						3.0
04		2.5						3.0
05		2.3						3.1
06		2.1						3.1
07		2.4						3.2
08		4.5						3.5
09		5.9						3.6
10		6.4						3.6
11		6.8						3.6
12		7.0						3.5
13		6.8						3.5
14		6.8						3.4
15		6.5						3.5
16		5.6						3.5
17		4.7						3.3
18		3.8						3.2
19		3.1						3.1
20		2.8						3.0
21		2.6						2.9
22		2.6						2.9
23		2.6						2.9

Time: 0.0°.
Length of time sweep: Manual operation.
Average values.

Table 14 (Provisional Data)

Chungking, China (29.4°N, 106.8°E) January 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07		5.1						3.2
08		6.6						3.5
09		7.6						3.4
10		8.7						3.4
11		9.2						3.4
12		9.8						3.4
13		10.3						3.3
14		10.5						3.3
15		9.5						3.3
16		8.6						3.5
17		7.7						3.6
18		5.9						3.5
19		5.2						3.5
20		4.9						3.5
21		4.4						3.5
22		4.1						3.3
23								

Time: 105.0°E.
Length of time sweep: 3.3 Mc to 12.3 Mc in fifteen minutes.
Median values.

Table 15 (Provisional Data)

Colombo, Ceylon (6.6°N, 80.0°E) January 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		5.3						3.3
01		4.9						3.0
02		4.0						3.2
03		3.8						3.2
04		3.4						3.3
05		2.7						3.3
06		2.4						
07		5.7						3.2
08		7.4						3.0
09		7.7						2.7
10		7.1						2.6
11		7.4						2.6
12		7.5						2.6
13		8.0						2.6
14		8.2						2.6
15		8.3						2.6
16		8.4						2.6
17		8.6						2.7
18		8.4						2.7
19		7.8						2.7
20		7.3						2.8
21		7.8						3.1
22		6.9						3.1
23		6.0						3.3

Time: Local.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Average values.

Table 16 (Provisional Data)

Christmas I. (1.9°N, 157.3°W) January 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	240	5.8					3.2	3.1
01	240	5.1					2.2	3.2
02	240	4.7					2.3	3.1
03	250	3.8						3.2
04	250	3.3					1.8	3.2
05	250	3.0					2.1	3.2
06	250	2.8					2.2	3.4
07	250	5.0					3.2	3.2
08	230	7.5				2.8	4.6	2.9
09	290	8.3	210	4.5		3.2	6.8	2.6
10	330	7.9	220	4.7		3.4	8.4	2.4
11	360	7.5	220	4.8			9.6	2.5
12	380	7.7	200	5.0			9.7	2.5
13	350	8.2	200	4.8			9.5	2.4
14	340	8.6	200	4.8		3.6	7.0	2.5
15	330	9.0	200	4.7		3.4	6.0	2.6
16	300	9.6	220	4.6		3.2	5.2	2.7
17	240	9.7				2.9	4.5	2.8
18	250	9.8				2.3	3.7	3.0
19	250	9.3					3.3	3.0
20	260	8.6					2.5	2.9
21	280	8.1					3.2	2.8
22	270	7.5					3.4	2.9
23	240	6.3					3.3	3.1

Time: 150.0°W.
Length of time sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 17 (Provisional Data)

Cape York, Australia (11.0°S, 142.4°E) January 1946

Time	h'F2	*f°F2	h'F1	f°F1	h'E	f°E	fEs	* F2-M3000
00		7.5						3.0
01		7.0						
02		6.5						
03		5.4						3.3
04		4.4						3.4
05		3.6						3.2
06		4.4						3.2
07		5.9						3.2
08		6.7						2.9
09		7.7						2.7
10		8.5						2.7
11		10.3						2.7
12								
13								
14								
15		9.2						2.9
16		9.5						2.9
17		8.9						2.8
18		8.1						2.7
19		7.5						2.6
20		8.2						2.7
21		8.6						2.9
22		8.9						3.1
23		8.2						3.2

Time: Local.
Length of time sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.
*No data for 1-16 January.

Table 18 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.3						3.0
01		4.6						3.0
02		4.0						2.9
03		3.8						2.9
04		3.4						2.9
05		3.6						3.1
06		4.7						3.2
07		5.4						3.1
08		5.7						2.9
09		6.2						2.9
10		6.6						2.8
11		7.1						2.8
12		7.4						2.8
13		7.7						2.9
14		7.8						2.9
15		7.5						3.0
16		7.1						3.0
17		6.8						3.1
18		6.6						3.1
19		6.4						3.0
20		6.2						2.9
21		5.8						2.8
22		5.6						2.8
23		5.6						2.9

Time: Local.
Length of time sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 19 (Provisional Data)

Capetown, Union of S. Africa (33.9°S, 18.7°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.7						2.7
01		3.7						2.7
02		3.6						2.8
03		3.5						2.8
04		3.0						2.8
05		4.2						2.9
06		5.3						2.9
07		6.0						2.8
08		6.6						2.8
09		7.3						2.8
10		7.5						2.7
11		7.8						2.7
12		7.9						2.7
13		7.9						2.7
14		7.8						2.7
15		7.6						2.8
16		7.2						2.8
17		7.0						2.9
18		6.5						2.9
19		6.0						3.0
20		5.5						2.9
21		4.8						2.9
22		4.2						2.8
23		4.0						2.7

Time: 15.0°E.
Length of time sweep: 2.2 Mc to 16.0 Mc in one minute.
Average values.

Table 20 (Provisional Data)

Canberra, Australia (35.3°S, 149.0°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.5						3.0
01		5.1						3.0
02		4.5						3.0
03		4.0						3.0
04		3.6						3.0
05		3.6						3.0
06		4.6						3.0
07		5.5						3.0
08		6.2						3.0
09		6.6						2.9
10		6.8						2.9
11		6.9						2.9
12		7.0						2.9
13		7.1						2.9
14		7.0						3.0
15		7.0						3.0
16		7.0						3.0
17		6.8						3.0
18		6.3						3.0
19		6.4						3.0
20		6.5						3.0
21		5.9						3.0
22		5.8						2.9
23		5.6						3.0

Time: Local.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.
Median values.

Table 21 (Provisional Data)

Delhi, India (28.6°N, 77.2°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.1						
01		3.0						
02		3.0						
03		2.9						
04		3.0						
05		2.7						
06		3.0						
07		5.2						
08		7.4						
09		8.2						
10		8.4						
11		8.6						
12		9.3						
13		9.1						
14		8.6						
15		8.5						
16		8.1						
17		7.5						
18		5.6						
19		4.8						
20		4.6						
21		4.1						
22		3.4						
23		3.1						

Time: 75.0°E.
Length of time sweep: Manual operation.
Average values.

Table 22 (Provisional Data)

Canberra, Australia (35.3°S, 149.0°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		6.6						2.9
01		6.3						3.0
02		5.8						2.9
03		4.8						2.9
04		4.3						3.0
05		4.5						3.0
06		5.2						3.0
07		5.7						2.9
08		6.5						2.9
09		6.9						2.9
10		7.3						2.9
11		7.6						2.9
12		7.1						2.9
13		6.9						2.9
14		7.1						2.8
15		7.1						2.9
16		6.9						2.9
17		7.0						3.0
18		7.0						3.0
19		6.9						3.0
20		6.6						3.0
21		6.8						2.9
22		6.8						2.9
23		6.6						2.9

Time: Local.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.
Median values.

Table 23 (Provisional Data)

Falkland Is. (51.7°S, 58.0°W) December 1945

Time	h'F2	*f°F2	h'F1	f°F1	h'E	f°E	fEs	*F2-M3000
00		8.2						3.0
01		8.1						3.1
02		7.9						3.1
03		7.7						3.1
04		7.9						3.0
05		8.4						3.0
06		8.6						3.0
07		9.2						2.9
08		9.1						3.0
09		9.8						3.0
10		9.9						3.0
11		9.8						3.1
12		9.6						3.1
13		9.2						3.2
14		7.8						3.3
15		7.8						3.3
16		7.7						3.3
17		7.7						3.3
18		7.8						3.3
19		8.1						3.2
20		8.4						3.1
21		8.1						3.0
22		8.2						3.0
23		8.3						3.0

Time: 60.0°W.
Average values.
*Data for 1-13 December, inclusive.

Table 24 (Provisional Data)

Delhi, India (28.6°N, 77.2°E) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.4						
01		3.4						
02		3.2						
03		3.1						
04		2.9						
05		2.8						
06		3.8						
07		7.4						
08		8.8						
09		9.5						
10		9.8						
11		10.3						
12		10.4						
13		11.0						
14		11.4						
15		11.5						
16		10.3						
17		9.2						
18		7.6						
19		6.1						
20		4.9						
21		4.0						
22		3.5						
23		3.4						

Time: 75.0°E.
Length of time sweep: Manual operation.
Average values.

Table 25 (Provisional Data)

Leningrad, U.S.S.R. (59.7°N, 30.5°E) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.1						
01		4.0						
02		3.8						
03		3.9						
04								
05								
06								
07		5.9						
08		6.3						
09		6.5						
10		6.6						
11		6.8						
12		6.8						
13		6.6						
14		6.6						
15		6.6						
16								
17		6.7						
18								
19		5.8						
20		5.5						
21		4.5						
22		4.6						
23		4.4						

Time: 30.0°E.
Average values.

Table 26 (Provisional Data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.2						
01	280	3.2						
02	280	3.1						
03	280	3.1						
04	280	3.1						
05	260	2.9						
06	240	3.3						
07	200	5.1			120	1.8		
08	200	6.3			100	2.3		
09	200	7.1	170	(3.8)	100	2.6		
10	190	7.8	180	4.2	100	2.8		
11	190	8.2			100	2.0		
12	190	8.3			100	2.8		
13	190	8.2			100	2.8		
14	200	8.0			100	2.6		
15	190	7.7			100	2.4		
16	190	7.0			100	2.0		
17	190	6.6			100	1.8		
18	200	5.9						
19	200	5.1						
20	210	4.4						
21	230	3.8						
22	240	3.6						
23	260	3.3						

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes.
Manual operation.
Average values.

Table 27 (Provisional Data)

Moscow, U.S.S.R. (55.8°N, 37.6°E) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.6						
01		3.6						
02		3.4						
03		3.2						
04		3.1						
05		3.2						
06		4.2						
07		5.6						
08		6.6						
09		7.2						
10		7.7						
11		7.9						
12		7.9						
13		7.9						
14		7.8						
15		7.4						
16		6.9						
17		6.5						
18		6.2						
19		5.4						
20		4.8						
21		4.4						
22		3.8						
23		3.6						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

Table 28 (Provisional Data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	3.6						
01	250	3.6						
02	250	3.4						
03	260	3.3						
04	260	3.2						
05	240	3.3						
06	200	4.3			120	1.8		
07	200	5.1	200	3.7	100	2.2		
08	220	5.6	180	4.0	100	2.5		
09	240	6.1	190	4.2	100	2.7		
10	250	6.4	180	4.3	100	2.9		
11	240	6.7	180	4.3	100	3.0		
12	230	6.9	180	4.3	100	3.0		
13	220	6.6	190	4.2	100	3.0		
14	210	6.4	180	4.2	100	2.8		
15	200	6.3	190	4.1	100	2.7		
16	190	6.1			100	2.5		
17	200	5.8			110	2.1		
18	200	5.7			110	1.9		
19	200	5.6						
20	200	5.2						
21	210	4.7						
22	230	4.3						
23	240	3.9						

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes.
Manual operation.
Average values.

Table 29 (Provisional Data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) August 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	4.4						
01	240	4.0						
02	250	3.7						
03	250	3.5						
04	240	3.6						
05	220	4.2			110	1.8		
06	220	4.9	200	3.6	110	2.2		
07	250	5.4	200	3.9	100	2.6		
08	280	5.7	190	4.2	100	2.8		
09	280	5.9	180	4.3	100	3.0		
10	280	6.2	190	4.5	100	3.1		
11	280	6.2	180	4.5	100	3.1		
12	280	6.2	180	4.4	100	3.2		
13	280	6.2	180	4.4	100	3.1		
14	280	6.0	180	4.4	100	3.1		
15	250	5.8	180	4.4	100	3.0		
16	240	5.7	180	4.1	100	2.8		
17	230	5.6	180	3.8	100	2.6		
18	210	5.6	210	3.6	110	2.2		
19	210	5.6	200	3.4	120	1.9		
20	210	5.7			110	1.7		
21	210	5.7						
22	220	5.3						
23	220	4.8						

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Average values.

Table 30

Washington, D. C. (39.0°N, 77.5°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.8						3.0
01	270	3.6						3.0
02	260	3.5						3.0
03	260	3.4						3.0
04	260	3.2						3.1
05	260	3.0						3.0
06	265	2.7						(3.0)
07	250	4.4			(125)	1.6	2.2	3.2
08	230	6.8			110	2.3	2.6	3.4
09	235	7.6	220		110	2.8	2.9	3.3
10	245	8.4	220	(4.2)	110	(3.1)		3.2
11	255	8.8	210	4.7	110	(3.3)		3.2
12	260	9.4	220	4.8	110	3.4		3.2
13	250	9.4	220	(4.6)	110	3.4		3.2
14	260	9.5	220	(4.4)	110	3.3	3.6	3.1
15	255	9.4	220	4.2	110	(3.0)	3.4	3.1
16	240	9.2	230		110	2.7	2.7	3.2
17	230	8.7			120	2.1	2.4	3.2
18	220	(8.0)						(3.2)
19	220	(6.8)						(3.2)
20	230	5.6						3.2
21	240	4.8						3.0
22	250	4.5						3.0
23	260	4.1						3.0

Time: 75.0°W.
Length of time sweep: 0.75 Mc to 11.5 Mc in 3.4 minutes, supplemented by 0.8 Mc to 14.0 Mc in two minutes.
Median values.

Table 31

Fairbanks, Alaska (64.9°N, 147.8°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	1.8					5.1	2.9
01	330	2.2					5.2	2.9
02	340	2.4					4.4	(2.9)
03	332	2.2					4.9	2.8
04	345	2.3					4.8	2.8
05	330	2.4					3.5	2.8
06	330	2.4					3.2	2.9
07	325	2.2					3.2	2.8
08	295	2.4					3.2	2.9
09	250	3.8				1.5	3.0	3.2
10	255	4.6				1.8	2.9	3.2
11	247	5.1				1.9	2.6	3.2
12	242	5.4				2.0	2.1	3.2
13	235	5.6				1.9		3.2
14	232	5.4				1.8	1.8	3.2
15	230	5.0				1.5	2.9	3.2
16	225	4.6					2.9	3.2
17	238	3.2					2.9	3.2
18	250	2.2					3.0	3.1
19	290	1.5					3.0	3.1
20	310	1.6					3.1	3.0
21	308	1.7					3.1	3.0
22	305	1.6					3.2	3.0
23	300	1.7					4.8	3.0

Time: 150.0°W.
Length of time sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 32

(Corrections and additions to previously published provisional data)

Churchill, Canada (58.8°N, 94.2°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		(2.7)					7.8	
01							6.0	
02	(350)	(3.5)					4.5	
03	(380)	(3.1)					4.0	
04	340	(3.6)					3.8	
05	310						4.0	(3.0)
06	325	(3.9)					4.0	
07	330	(3.2)					4.1	(3.0)
08	335						3.9	(2.9)
09	280						3.8	
10	255				130	3.0	3.6	
11	260		240	3.5	135	2.8		
12	260		240	3.4	140	2.8		
13	260		230	3.4	140	2.7		3.2
14	250		240	3.2	140	2.7		
15	250		240		130	2.8	3.0	
16	240					2.4	3.2	
17	245						3.6	
18	270						3.6	
19	305						3.7	
20	300						4.0	
21	300						3.9	
22	300						5.0	(3.0)
23	355	(2.8)					6.0	

Time: 90.0°W.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 33

(Corrections and additions to previously published provisional data)

Prince Rupert, Canada (54.3°N, 130.3°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								3.4
02								
03								(3.3)
04		1.8						
05		1.8						
06								3.2
07								
08	240							
09	200		180	2.1			1.7	
10	200		180	3.0	90	2.1		
11	200	6.2	190	3.4	90	2.3		
12	200		180	3.5	90	2.5		
13	200		180	3.4		2.6		
14	200		180	3.4	90	2.4		3.8
15	190		180	3.2		2.3		
16	190		180		100	2.3		3.8
17	180		170					
18	180							
19	185							
20	200							
21	220							3.5
22								
23								3.4

Time: 120.0°W.
Length of time sweep: Manual operation.
Median values.

Table 34

(Corrections and additions to previously published provisional data)

St. John's Newfoundland (47.7°N, 52.7°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290							
01	300	2.2						
02	300							
03	290						1.9	3.1
04	280						1.9	
05	280						1.8	3.1
06	280						2.1	
07	280						2.3	
08	255		210	2.0	120	1.7	2.4	
09	240	5.7	200	2.4	110	1.9		
10	250		210	3.1	115	2.2		
11	260	7.2	215	3.6	110	2.5		
12	250		210	3.8	110	2.7		
13	250	7.0	210	3.6	120	2.6		
14	250		200	3.3	120	2.4		
15	240		210	3.0	120	2.3		3.4
16	240		210	2.5	120	1.9		
17	240		210	2.4	110	1.8		
18	260		230	212				
19	245	4.8	240	2.0				
20	240							3.3
21	250	3.6						3.2
22	270						1.8	3.1
23	280	2.8						3.1

Time: 52.5°W.
Length of time sweep: Manual operation.
Median values.

Table 35

(Corrections and additions to previously published provisional data)

Ottawa, Canada (45.5°N, 75.8°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	(290)							
01								
02		2.2						3.0
03		(2.2)						(3.0)
04		(2.1)						(3.0)
05		(2.1)						(3.0)
06		(2.1)					2.4	(3.0)
07		(2.9)						(3.1)
08	230						2.4	
09	220	5.6					2.8	
10	220				120	2.6		
11	230		210	3.8	120	2.8		
12	240		200	4.0	110	2.8		
13	240		200	3.9	110	2.8		
14	220		200	3.7	120	2.7		
15	220		200	3.4	120	2.5		
16	230							
17	220							
18	220	5.6						
19	220	5.0						
20	230							
21	245							
22	(265)							
23	(250)							

Time: 75.0°W.
Length of time sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 36

(Corrections and additions to previously published provisional data)

Boston, Massachusetts (42.4°N, 71.2°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	285							
01	285	2.2						
02	285							
03	275							
04	270							
05	260							
06	260							
07	260							
08	236				135	1.9		
09	240				130	2.3		
10	246	7.3			130	2.6		
11	245	7.8			130			
12	242				130			
13	236				130	2.8		
14	248				130			
15	250	7.2			130	2.3		
16	240	8.6			140	2.0		
17	235							
18	240	5.8						
19	240							
20	245							
21	270							
22	275	2.8						
23	285							

Time: 75.0°W.
Length of time sweep: 0.85 to 13.75 Mc in one minute.
Median values.

Table 37

(Corrections and additions to previously published provisional data)

San Francisco, California (37.4°N, 122.2°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260						2.6	
01	260						2.6	
02	250						2.6	
03	250						2.6	
04	250						2.6	
05	260						2.5	
06	260						2.6	
07	250						2.5	
08	230		220	2.4	120	1.9	2.9	
09	240		220	3.4	110	2.5	3.4	
10	250		220	4.0	110	2.9		3.1
11	260		220	4.3	110	3.1		
12	260		215	4.3	110	3.3		
13	245		210	4.2	110	3.2		
14	250		210	4.0	110	3.0		
15	240		220	3.8	110	2.8	3.4	
16	230		220	3.2	110	2.4	3.2	
17	220				110	2.2	2.5	
18	220						2.5	
19	220						2.5	
20	230						2.5	
21	240						2.9	
22	260						2.5	
23	280						2.7	

Time: 120.0°W.
Length of time sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on hour.
Median values.

Table 38

(Corrections and additions to previously published provisional data)

Baton Rouge, Louisiana (30.6°N, 91.2°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	330							
01	335							
02	310							
03	300							
04	300							
05	310							
06	335							2.8
07	290							
08	295		265	3.6	130	2.1		
09	300		260	4.0	120	2.6		
10	300		250	4.4	120	2.9		
11	340		250	4.5	120	3.1		
12	310	8.2	250	4.5	120	3.1		
13	320		250	4.6	120	3.1		
14	310		250	4.5	120	3.0		
15	300		255	4.1	120	2.7		
16	300	7.1	260	3.6	130	2.4		
17	290							
18	260							
19	295							
20	300							
21	330							
22	340							
23	340	3.3						

Time: 90.0°W.
Length of time sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.
Median values.

Table 39

(Corrections and additions to previously published provisional data)

Maui, Hawaii (20.8°N, 156.5°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01		3.1						
02								
03								
04		2.0						(3.3)
05								(3.3)
06		2.0						(3.1)
07								
08						2.4		
09						2.9		
10								
11								
12		10.0	200					
13			205					
14								
15		10.8		4.7				
16		8.7					4.0	
17		7.6					--	
18							--	
19							--	
20							--	
21								
22								
23								

Time: 150.0°W.
Length of time sweep: 2.2 Mc to 16.0 Mc in one minute.
Median values.

Table 40

San Juan, Puerto Rico (18.4°N, 68.1°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						2.8
01		4.1						2.8
02		4.2						3.0
03		4.0						3.0
04		3.5						2.9
05		3.4						2.8
06		3.2						2.9
07	285	4.6						3.0
08	250	6.6						3.2
09	275	8.0	230	4.0		2.9		3.1
10	280	8.6	230	4.3		3.1		3.2
11	280	8.0	210	4.4		3.2		3.1
12	300	7.4	210	4.5		3.3		3.0
13	315	7.9	220	4.5		3.3		2.9
14	310	7.9	220	4.4		3.2		2.9
15	300	7.4	240	4.2		3.1		3.0
16	290	7.4	240	3.8		3.0		3.0
17	250	6.8						3.1
18	250	6.5						3.2
19	245	5.5						3.2
20		4.1						3.1
21		3.9						2.9
22		4.0						2.9
23		3.8						2.8

Time: 60.0°W.
Length of time sweep: Record centered on the hour.
Median values.

Table 41

Guam I. (13.5°N, 144.8°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	235	5.6						3.3
01	240	5.4						3.3
02	240	4.6						3.3
03	240	4.0						3.3
04	250	3.8						3.3
05	250	3.0						3.2
06	260	3.0						3.2
07	250	4.6						3.3
08	230	7.6			110		3.5	3.3
09	265	9.4	220	4.6	110	3.0	5.2	3.2
10	280	10.3	200	4.7	110	3.3	5.8	3.0
11	290	9.8	195	4.8	110		6.0	2.7
12	305	9.2	190	4.9	100		6.0	2.6
13	320	9.4	180	5.0	110		6.0	2.6
14	320	9.5	200	4.9	110		6.3	2.7
15	300	9.6	200	4.8	105		6.0	2.8
16	300	9.8	220	4.5	100		5.2	3.0
17	240	10.2					5.0	3.1
18	240	10.2					3.6	3.3
19	230	9.4					3.2	3.3
20	230	8.6					3.4	3.2
21	235	8.0					3.0	3.1
22	230	7.0					2.6	3.3
23	230	6.3					2.6	3.4

Time: 150.0°E.
Length of time sweep: Manual operation.
Median values.

(Corrections and additions to previously published provisional data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	275						2.5	
01							2.3	
02		3.8					1.8	
03							1.9	
04							1.8	3.0
05							2.0	
06							2.0	
07					120			
08			230	4.3	120			
09					120			
10					120			
11					120			
12					120			
13	305				120			
14					120			
15	295				120		4.3	
16					120		4.4	3.2
17					120			
18								
19								
20	225						2.6	
21							2.3	
22							2.4	
23							2.1	

Time: 60.0°W.
Length of time sweep: Manual operation.
Median values.

Table 43

(Corrections and additions to previouely publiehed provisional data)

Huancayo, Peru (12.0°S, 75.3°W) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300							
01	260	(5.0)						
02	290							
03	250							
04	260							
05	260							
06	260					1.9	2.9	
07	230					2.6	4.8	
08	230		220	4.6		3.1	9.3	
09	340		210	4.8		3.5	11.9	
10	370		200	4.9		3.7	11.9	
11	380		200	4.9		3.7	11.9	
12	390		200	4.9		3.8	11.9	
13	380		200	4.9		3.8	11.9	
14	350		200	4.8		3.7	7.4	
15	350		200	4.7		3.5	8.4	
16	310		210	4.6		3.3	4.7	
17	240					2.7	4.8	
18	260					1.9	2.9	
19	290					0.9		
20	320							
21	350							
22	360							(2.5)
23	330							(2.9)

Time: 75.0°W.
Length of time sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 44

Christchurch, N. Z. (43.5°S, 172.6°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	5.8					3.2	
01	260	5.1					3.8	
02	250	4.4					3.2	
03	260	3.9					3.2	
04	260	3.5					2.8	
05	260	4.0				1.4	3.4	
06	270	5.0	240	3.8		2.3		
07	290	5.4	240	4.2		2.8	4.2	
08	330	6.0	220	4.5		3.1	4.8	
09	300	6.4	220	4.6		3.3	5.2	
10	330	6.6	210	4.8		3.4	5.7	
11	330	6.5	215	4.8		3.5	6.1	
12	350	6.5	220	4.8		3.6	4.0	
13	350	6.5	220	4.8		3.6	4.8	
14	340	6.5	220	4.8		3.5	5.4	
15	340	6.5	240	4.8		3.4	5.8	
16	320	6.9	230	4.5		3.2	5.7	
17	300	6.9	220	4.2		2.9	4.8	
18	280	6.8	240	3.8		2.5	4.2	
19	260	6.8		3.0		1.8	4.4	
20	250	6.8					3.8	
21	260	6.6					3.3	
22	270	6.4					3.5	
23	280	6.0					3.3	

Time: 172.5°E.
Length of time swesp: 1.0 Mc to 13.0 Mc. Automatic.
Median values.

Table 45

(Corrections and additions to previously publsihed provisional data)

Churchill, Canada (58.8°N, 94.2°W) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	(310)	(3.4)					7.0	
01	(280)	(3.7)					5.0	(3.1)
02	(320)	(3.2)					4.2	
03	320						3.3	
04	(330)	3.6					3.8	
05	(326)	3.8					4.0	(2.8)
06	(290)	3.3					3.9	(3.0)
07	(329)	3.1					3.8	(2.7)
08	(275)	(3.3)					3.7	(3.0)
09	250	4.8					3.7	
10	240						3.6	
11	250				150	2.6	3.6	
12	250				120	2.7	3.6	
13	240				130	2.8	3.6	
14	250				140	3.0	3.6	
15	240	8.0				2.9	3.4	
16	240						3.6	
17	260						3.6	
18	270	4.6					3.8	
19	285						3.8	
20	300						4.4	
21	290						4.1	
22	295	(3.6)					6.0	(3.0)
23	315	(3.2)					5.8	(2.9)

Time: 90.0°W.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 46

Tokyo, Japan (35.6°N, 139.5°E) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	*F2-M3000
00		(2.9)					1.9	(2.8)
01		(3.0)					2.0	(3.0)
02		(3.2)					1.9	(3.2)
03		(3.2)						(3.2)
04		(3.1)					2.1	(3.3)
05		(3.0)					1.9	(3.2)
06		(2.7)					2.0	(3.2)
07		(5.3)					2.1	(3.7)
08		6.6					2.4	(3.8)
09		7.5					3.4	3.9
10		7.9					3.6	3.9
11		9.0					3.8	3.8
12		8.8					3.8	3.9
13		7.9					3.4	3.9
14		7.6					3.4	3.8
15		7.0					3.2	3.9
16		6.5					2.9	4.0
17		4.8					3.0	4.0
18		(3.9)					2.8	(3.6)
19		3.5					2.9	(3.7)
20		3.3					2.8	(3.3)
21		(2.8)					2.6	(3.2)
22		(2.8)						(3.0)
23		(3.0)						(2.9)

Time: 135.0°E.
Median values.
*Since height calibration on Tokyo equipment was doubtful, the values of M3000 are also doubtful.

Table 47

Cairo (Quassassin) Egypt (30.0°N, 31.2°E) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		3.2						2.8
01		3.2						2.9
02		3.2						3.0
03		3.3						3.1
04		3.3						3.3
05		2.4						3.3
06		2.5						3.1
07		5.5						3.4
08		7.4				2.4		3.4
09		7.7				2.7		3.4
10		7.6				2.8		3.4
11		8.2				3.1		3.2
12		8.8				3.0		3.2
13		9.0				3.0		3.2
14		8.2				2.8		3.2
15		8.4				2.6		3.2
16		8.4						3.4
17		5.9						3.3
18		4.5						3.2
19		4.4						3.1
20		4.1						3.0
21		3.4						3.2
22		3.0						2.9
23		3.1						2.8

Time: 30.0°E.
Median values.

Table 48

Colombo, Ceylon (6.6°N, 80.0°E) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		5.3						3.2
01		4.9						3.1
02		5.0						3.2
03		4.7						3.2
04		3.9						3.4
05		2.6						3.5
06		3.2						3.1
07		6.3						3.1
08		7.6						2.8
09		8.0						2.6
10		7.8						2.6
11		7.6						2.6
12		8.0						2.5
13		8.9						2.6
14		9.4						2.6
15		9.6						2.6
16		9.4						2.6
17		9.2						2.6
18		9.3						
19		8.0						2.6
20		8.2						2.6
21		8.2						3.0
22		7.5						3.2
23		5.8						3.2

Time: Local.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 49

(Corrections and additions to previously published provisional data)

Christmas I. (1.9°N, 157.3°W) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	240						3.4	3.2
01	250						3.0	
02	250						2.7	
03	280						2.5	3.1
04	270						2.2	3.1
05	270						2.5	3.2
06	265						2.7	
07	250				100	2.2	3.5	3.1
08	230				100	2.8	5.2	
09	280		220	4.5	100	3.2	6.8	
10	310		210	4.8	100	3.4	7.3	2.4
11	330		205	4.9			9.7	
12	340	8.3		5.0			9.7	
13	330		200	4.9			7.6	
14	315		200	4.8	100	3.6	7:0	
15	300		220	4.6	100	3.2	6.8	
16	240	10.7	210	(4.5)	100	3.1	6.2	
17	240				100	2.8	6.0	
18	250					2.1	4.0	
19	250						3.3	
20	260						3.2	2.8
21	280						3.4	
22	280						3.5	
23	250	7.2					3.5	3.1

Time: 150.0°W.
Length of time sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 50

(Corrections and additions to previously published provisional data)

Capetown (Simonstown), Union of S. Africa (33.9°S, 18.7°E) December, 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		4.5						2.7
01		4.2						2.8
02								
03		4.1						
04		3.8						2.8
05		5.0						
06		5.9		3.7				
07				4.4				
08		7.6		4.6				
09		8.2		4.7				
10		8.8		4.8				
11				4.8				
12		9.3		4.8				2.6
13		8.8		4.8				2.6
14				4.7				
15		8.7		4.6				
16		8.4		4.2				
17		7.8		3.8				
18		7.6						
19		6.7						
20		5.8						3.0
21		5.3						
22		4.8						2.9
23		4.7						

Time: 15.0°E.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 51

(Corrections and additions to previously published provisional data)

Christchurch, N. Z. (43.5°S, 172.6°E) December 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00							2.8	
01							3.4	
02							3.0	
03							2.8	
04		4.8					2.9	
05								
06								
07								
08	310							
09							5.0	
10								
11								
12		7.2						
13			205					
14								
15								
16								
17			235					
18		7.6					4.8	
19	260						4.5	
20							3.3	
21							3.2	
22							3.1	
23							2.9	

Time: 172.5°E.
Length of time sweep: 1.0 Mc to 13.0 Mc. Automatic.
Median values.

Table 52

Tokyo, Japan (35.6°N, 139.6°E) November 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	*F2-M3000
00		(3.2)						(3.2)
01		(3.3)						(3.0)
02		(3.4)						(3.0)
03		(3.5)						(3.1)
04		(3.6)						(3.3)
05		(3.2)						(2.9)
06		(3.7)						(3.2)
07		(7.1)						(3.6)
08		8.5					3.2	3.7
09		9.0					3.6	3.7
10		9.8					3.6	3.8
11		10.0					3.6	3.7
12		9.9					3.6	3.7
13		9.8					3.6	3.6
14		9.7					3.6	3.6
15		8.7					3.3	3.7
16		7.7					3.6	3.7
17		(6.3)						(3.6)
18								
19		(4.1)					2.6	(3.4)
20		(3.5)						(3.3)
21		(3.4)						(3.4)
22		(3.2)						(3.1)
23		(3.2)						(3.3)

Time: 135.0°E.
Median values.
*Since height calibration on Tokyo equipment was doubtful, the values of M3000 are also doubtful.

Table 53

Leyte, Philippine Is. (11.0°N, 125.0°E) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		8.0					3.6	3.2
01		7.0					2.8	3.3
02		6.0					2.8	3.3
03		4.8					2.4	3.4
04		4.2					2.0	3.3
05		3.0					2.0	3.1
06		3.0					2.1	3.0
07		6.8		2.7		1.9	3.4	3.2
08		8.9		3.5		2.7	4.1	3.1
09		10.5		4.3		3.1	4.8	3.0
10		10.8		4.9		3.5	5.5	2.6
11		10.0		5.2		3.7	6.0	2.5
12		9.7		5.2		3.8	6.6	2.5
13		9.9		5.2		3.8	6.3	2.5
14		10.3		5.1		3.7	6.4	2.5
15		10.8		4.9		3.6	5.7	2.5
16		11.2		4.6		3.2	5.5	2.6
17		11.0		3.8		2.8	5.3	2.6
18		10.4		2.6		2.0	4.5	2.7
19		9.4					3.2	2.6
20		8.7					2.2	2.5
21		8.6					2.6	2.6
22		8.4					3.2	2.8
23		8.8					4.6	3.1

Time: 135.0°E.
Length of time sweep: Manual operation.
Median values.

Table 54

(Corrections and additions to previously published published data)

Colombo, Ceylon (6.6°N, 80.0°E) November, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.6						3.2
01		7.2						
02		6.2						3.2
03		5.6						
04		4.4						
05		3.7						
06		4.4						
07								3.0
08		8.8						
09		8.9						
10		8.8						
11		8.9						2.6
12		9.4						2.6
13								
14		10.3						
15		10.6						
16								2.4
17		10.0						2.4
18		10.2						2.4
19								
20		8.6						2.4
21		9.3						2.7
22								2.9
23								2.9

Time: Local.
Length of time sweep: 2.0 Mc to 16 Mc in one minute.
Median values.

Table 55

(Corrections and additions to previously published provisional data)

Cape York, Australia (11.0°S, 142.4°E) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	242	10.0					2.3	3.0
01	240	9.0					2.1	3.0
02	250	8.4					2.1	3.0
03	245	7.9					2.1	3.0
04	240	7.4					2.2	3.0
05	250	6.4					2.2	2.9
06	260	6.5				1.4	2.7	3.1
07	245	7.8				2.5	3.0	3.2
08	285	8.6	225	4.6		3.0	3.5	3.1
09	300	9.1	220	5.0		3.4	3.8	2.9
10	345	10.0	215	5.2		3.5	3.8	2.7
11	350	10.5	200	5.4		3.6	3.9	2.7
12	350		190	5.4		3.9	3.8	
13	340		200	5.3		3.8	3.9	
14	330		195	5.3		3.6	3.8	
15	320		220	5.3		3.6	3.8	
16	320		232	5.0		3.3	3.5	
17	300	10.4	242	4.6		2.8	3.1	2.9
18	260	10.0					3.1	2.7
19	300	10.0					3.2	2.7
20	300	10.0					2.8	2.7
21	300	10.5					2.8	2.7
22	280	10.5					2.3	2.9
23	250	10.5					2.1	3.0

Time: 150.0°E.
Length of time sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.

Table 56

(Corrections and additions to previously published provisional data)

Brisbane, Australia (27.5°S, 153.0°E) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	7.8					3.6	3.0
01	240	7.5					2.9	3.1
02	250	6.5					2.8	3.1
03	250	6.3						3.0
04	250	5.8						3.0
05	240	6.0						3.2
06	230	6.8						3.3
07	250	7.3	220	4.5	110	2.8	3.6	3.2
08	280	8.1	210	4.8	110	3.2	4.4	3.1
09	290	9.0	200	5.0	110	3.4	4.8	3.0
10	290	9.6	195	5.1	110	3.5	4.8	3.0
11	300	10.0	200	5.3	110	3.6	5.2	3.0
12	300	10.1	190	5.3	105	3.6	5.4	3.0
13	300	10.1	200	5.1	110	3.6		3.0
14	295	10.0	200	5.0	110	3.5		3.0
15	290	9.5	215	4.8	110	3.3		3.1
16	270	9.3	230	4.6	115	2.8	3.8	3.0
17	250	9.0				2.4	4.3	3.1
18	250	9.0					3.8	3.0
19	250	8.8					3.6	3.0
20	270	8.5					3.6	2.9
21	280	8.0					3.8	2.9
22	280	8.2					3.8	2.9
23	270	8.0					3.6	2.9

Time: 150.0°E.
Length of time sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.
Median values.

Median values.

Table 57

(Corrections and additions to previously published provisional data)

Capetown (Simonetown), Union of S. Africa (33.9°S, 18.7°E) November 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00		4.6						
01		4.5						
02		4.5						
03								
04								
05		5.2						
06		6.4						
07				4.4				
08		8.4		4.8				
09				4.8				
10		9.6		4.8				
11		10.4		5.0				
12		10.6		5.0				
13		10.4		4.9				
14				4.8				
15		10.1		4.6				
16		9.5		4.3				
17		9.2		4.0				
18		8.7						
19								
20		6.5						
21								
22		4.9						
23								

Time: 15.0°E.
Length of time sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 58

(Corrections and additions to previously published provisional data)

Canberra, Australia (35.3°S, 149.0°E) November 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	300	6.2					4.1	2.9
01	270	6.2					3.4	2.9
02	260	5.4					2.8	3.0
03	270	4.8					3.0	3.0
04	280	4.5					3.0	2.9
05	260	4.6						3.0
06	260	5.4	240	4.0	120	2.4	3.1	3.0
07	290	6.5	240	4.3	110	2.8	4.2	3.0
08	300	6.4	240	4.5	110	3.2	4.2	3.0
09	325	7.4	230	4.5	110	3.3	4.3	3.0
10	320	7.8	225	4.6	110	3.5	4.5	2.9
11	330	8.0	210	4.6	110	3.5	4.4	2.9
12	340	8.0	205	4.7	110	3.5	4.4	2.9
13	340	8.2	210	4.6	110	3.5	4.1	2.9
14	330	8.0	220	4.6	110	3.5	4.1	2.9
15	330	8.1	240	4.6	110	3.5	4.1	2.9
16	310	8.0	230	4.4	110	3.2	4.0	2.9
17	300	8.0	245	4.1	120	2.8	4.2	2.9
18	290	7.9			120	2.3	4.5	2.9
19	255	7.6					4.0	3.0
20	260	7.1					3.8	3.0
21	280	6.8					4.2	3.0
22	290	6.8					4.4	2.9
23	290	6.8					4.5	3.0

Time: 150.0°E.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.
Median values.

Table 59

Tokyo, Japan (35.6°N, 139.6°E) October 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	*F2-M3000
00		(4.0)						(3.2)
01		(3.9)						(2.9)
02		(3.8)						(3.0)
03		(3.8)						(3.0)
04		(3.5)						(3.1)
05		(3.5)						(2.8)
06		(5.2)						(3.2)
07		(7.1)						(3.5)
08		8.6						(3.7)
09		9.5						3.5
10		10.1						3.4
11		10.2						3.4
12		10.0						3.3
13		9.6						3.5
14		9.9						3.5
15		9.4						3.5
16		8.8						3.6
17		(8.2)						(3.6)
18								
19								
20								
21		(4.8)						(3.3)
22		(5.0)						
23		(4.6)						(3.2)

Time: 135.0°E.
Median values.
*Since height calibration on Tokyo equipment was doubtful, the values of M3000 are also doubtful.

Table 60

Peshawar, India (34.0°N, 71.5°E) October 1945

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06	252	5.6						
07	264	6.9						
08	288	8.2						3.2
09	300	8.6						
10	312	9.4						
11	324	9.8						
12	324	10.5						3.0
13	336	10.7						
14	324	10.6						
15	318	10.3						
16	312	9.7						3.0
17	288	8.6						
18	300	6.9						
19	288	5.6						
20	288	5.2						3.1
21	300	4.4						
22	300	3.8						
23	300	3.6						

Time: Local.
Length of time sweep: Manual operation.
Median values.
*Height at 0.83 foF2.

Table 61

(Corrections and additions to previously published provisional data)

Delhi, India (28.6°N, 77.2°E) October 1945

Time	*	f^oF2	$h'F1$	f^oF1	$h'E$	f^oE	fEs	F2-M3000
00	360	4.0						2.9
01	360	3.8						
02	345	3.6						
03	360	3.6						
04	360							2.7
05	360	3.2						
06	345	4.8						
07	360	7.7						
08	360	8.4						2.8
09	390							
10	390	10.4						
11	420	11.0						
12	390	11.8						2.7
13	390	12.4						
14	390							
15	390	12.2						
16		----						
17	390	11.2						2.8
18	360							
19	360	7.8						
20	360	6.4						
21	390	5.4						2.8
22	360							
23	360	4.2						

Time: Local.
Length of time sweep: Manual operation.
Median values.
*Height at 0.83 f^oF_2.

Table 62

Bombay, India (19.0°N, 73.0°E) October 1945

Time	*	f^oF2	$h'F1$	f^oF1	$h'E$	f^oE	fEs	F2-M3000
00	360	7.0						2.7
01	330	6.5						
02	300	5.6						
03	300	3.5						
04								
05								
06	270	5.0						
07	270	8.9						
08	300	9.9						3.2
09	300	10.9						
10	360	12.0						
11	360	12.8						
12	390	13.4						2.7
13	390	13.9						
14	390	14.0						
15	360	14.3						
16	330	14.4						3.1
17	300	14.0						
18	300	13.6						
19	300	13.3						
20	300	12.8						3.1
21	300	11.4						
22	300	9.4						
23	330	8.5						

Time: Local.
Length of time sweep: Manual operation.
Median values.
*Height at 0.83 f^oF_2.

Table 63

Madras, India (13.0°N, 80.2°E) October 1945

Time	*	f^oF2	$h'F1$	f^oF1	$h'E$	f^oE	fEs	F2-M3000
00								3.5
01								
02								
03								
04								3.6
05								
06	270	5.3						
07	300	8.0						
08	330	9.3						3.2
09	390	10.0						
10	420	10.1						
11	420	9.8						
12	420	10.0						2.5
13	420	10.4						
14	420	10.5						
15	420	11.0						
16	420	11.0						2.5
17	390	11.1						
18	360	11.0						
19	360	10.9						
20	360	10.2						2.9
21	330	10.8						
22	300	10.6						
23								

Time: Local.

Table 64

(Corrections and additions to previously published provisional data)

Leyte, Philippine Is. (11.0°N, 125.0°E) October 1945

Time	$h'F2$	f^oF2	$h'F1$	f^oF1	$h'E$	f^oE	fEs	F2-M3000
00		9.3						
01		9.2						
02								
03		5.5						
04								
05								
06		3.4					3.2	
07		7.2				1.8		
08								
09								
10								
11								
12								
13								
14								
15								
16				4.4				
17								
18		11.8						
19							4.2	
20								
21								
22		9.0					3.4	
23								

Time: 136.0°E.

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	5.2						
01	280	4.7	220	2.3				
02								
03								
04								
05								
06								
07								
08								
09								
10	240	5.1	220	2.4				
11								
12	270	5.3	220	2.6				
13								
14	270	5.3	230	2.5				
15								
16								
17								
18								
19	240	5.7	220	4.3				
20								
21								
22	260	5.1	250	3.7				
23								

Time: 60.0°E.
Average values.

Leningrad, U.S.S.R. (59.7°N, 30.5°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	310	3.5						
01	330	3.4						
02	330	3.2						
03	330	3.2						
04	320	3.2						
05								
06								
07								
08	270	4.8						
09	270	4.8						
10	300	5.2						
11	300	5.1						
12	300	4.9						
13	300	4.9						
14	290	5.0						
15	280	5.0						
16	290	5.2						
17	280	5.1						
18	280	5.0						
19	290	4.8						
20	290	4.8						
21	300	4.5						
22	280	4.2						
23	290	3.9						

Time: 30.0°E.
Average values.

Table 67

Moscow, U.S.S.R. (55.8°N, 37.6°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	330	4.0						
01	330	3.7						
02	320	3.4						
03	340	3.4						
04	340	3.4						
05	320	3.7		2.3		2.2		
06	300	4.6		2.7		2.3		
07	300	5.3		2.7		2.4		
08	320	5.5		3.3		2.6		
09	320	6.0		3.5		3.1		
10	310	6.3		3.6		3.3		
11	320	6.3		3.6		3.3		
12	320	6.2		3.8		3.3		
13	310	6.2		3.7		3.2		
14	290	6.0		3.5		2.8		
15	300	6.0		3.1		2.6		
16	300	5.8		2.6		2.4		
17	280	5.8		2.2		2.1		
18	260	5.8		2.2		2.0		
19	240	5.6						
20	280	5.5						
21	300	4.9						
22	310	4.6						
23	320	4.1						

Time: 30.0°E.
Length of time sweep: 1.6 Mc to 11.0 Mc in ten minutes.
Manual operation.
Average values.

Table 68

Alma Ata, U.S.S.R. (43.5°N, 76.5°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	210	4.8						
01	220	4.6						
02	220	4.5						
03	220	4.4						
04	220	4.2						
05	220	4.7				(2.2)		
06	210	5.1			110	2.6		
07	210	5.8			120	2.7		
08	210	6.2	180	4.1	110	3.3		
09	200	7.0	180	4.4	100	3.7		
10	210	7.2	180	4.5	110	3.7		
11	200	7.4	180	4.7	110	4.0		
12	200	7.0	190	4.6	110	4.0		
13	210	6.8	180	4.6	100	3.9		
14	210	6.8	200	4.6	110	3.8		
15	220	6.5	180	4.6	110	3.7		
16	220	6.6	200	4.6	110	3.4		
17	190	6.3			100	3.3		
18	200	6.6			100			
19	200	6.1						
20	200	5.8						
21	200	5.3						
22	200	5.1						
23	210	4.9						

Time: 75.0°E.
Length of time sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes.
Manual operation.
Average values.

Table 69

(Corrections and additions to previously published provisional data)

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) August 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	240	4.8	200	2.2				
01	230	4.6	210	2.5				
02								
03								
04								
05								
06								
07								
08								
09								
10	290	4.3	220	2.8				
11								
12	290	4.7	230	3.1				
13								
14	240	5.0	240	3.3				
15								
16								
17								
18								
19	260	5.4	210	3.0				
20								
21								
22	260	4.9	220	2.8				
23								

Time: 60.0°E.
Average values.

Table 70

Leningrad, U.S.S.R. (59.7°N, 30.5°E) August 1945

Time	h'F2	foF2	h'F1	*foF1	h'E	foE	fEs	F2-M3000
00	270	3.9						
01	270	3.8						
02	280	3.8						
03	280	3.8						
04	290	3.9						
05	280	4.1						
06								
07								
08								
09	280	4.8	260	3.9				
10	300	4.7	270	3.8				
11	280	5.0	250	3.7				
12	290	5.2	250	3.9				
13	300	5.2	250	4.0				
14	280	4.9	240	3.7				
15	270	4.8	240	3.4				
16	270	4.8		3.4				
17	280	4.8						
18								
19	260	4.8						
20	270	4.8						
21	260	4.7						
22	290	4.7						
23	280	4.2						

Time: 30.0°E.
Average values.
*Original summaries from U.S.S.R. did not state whether F1 values given were $f^{o}F1$ or $f^{x}F1$. On the basis of comparison with data for stations at similar latitudes they were assumed to be $f^{x}F1$ and 0.8 Mc was subtracted to obtain above figures.

Table 71

Moscow, U.S.S.R. (55.8°N, 37.6°E) August 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	330	4.2						
01	340	4.0						
02	380	4.0						
03	400	3.6						
04	370	3.8						
05	350	3.4	220	2.4		2.2		
06	350	5.0	220	3.0		2.5		
07	350	5.4	220	3.4		2.9		
08	350	5.7	220	3.8		3.3		
09	370	5.8	220	4.0		3.5		
10	370	6.2	220	4.1		3.5		
11	370	6.2	220	4.1		3.5		
12	360	6.2	210	4.1		3.5		
13	350	5.7	210	4.0		3.4		
14	340	5.7	210	3.9		3.0		
15	370	5.6	220	3.7		3.2		
16	380	5.5	220	3.3		3.0		
17	370	5.5	210	3.1		2.8		
18	380	5.8	220	2.7		2.5		
19	300	6.1	220	2.3		2.2		
20	290	6.2	220	2.3				
21	300	6.0						
22	310	5.3						
23	320	5.0						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

Table 72

(Corrections and additions to previously published provisional data)

Moscow, U.S.S.R. (55.8°N, 37.6°E) July 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	320	5.2						
01	330	4.7						
02	330	4.3						
03	350	4.2						
04	350	4.4	210	2.5		2.4		
05	360	4.9	210	2.7		2.5		
06	370	5.2	210	3.3		3.0		
07	380	5.6	220	3.8		3.2		
08	380	5.7	220	3.8		3.3		
09	380	6.0	220	4.1				
10	370	6.0	220	4.1		3.5		
11	380	6.2	220	4.2		3.7		
12	370	6.0	220	4.1		3.6		
13	370	6.0	220	4.1		3.6		
14	370	5.7	220	4.0		3.4		
15	390	5.6	220	3.9		3.2		
16	380	5.5	210	3.7		2.9		
17	370	5.5	210	3.1		2.8		
18	350	5.6	210	2.9		2.5		
19	380	5.7	220	2.3		2.2		
20	310	6.2	220	2.3		2.2		
21	310	6.2						
22	300	6.0						
23	310	5.9						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

(Corrections and additions to previously published provisional data)

Moscow, U.S.S.R. (55.8°N, 37.6°E) June 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	300	5.1						
01	310	4.7						
02	320	4.5						
03	320	4.5						
04	330	4.5						
05	330	4.9						
06	330	5.4						
07	350	5.5						
08	350	5.7						
09	360	5.7						
10	370	5.9						
11	360	5.8						
12	360	5.7						
13	350	5.5						
14	350	5.1						
15	350	4.9						
16	340	5.0						
17	340	5.1						
18	320	5.7						
19	320	6.0						
20	300	6.1						
21	300	6.0						
22	280	5.9						
23	320	5.5						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

Table 75

(Corrections and additions to previously published data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) April 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00								3.1
01								3.1
02	250							3.0
03	250							3.1
04	250							3.0
05	220				130			3.3
06								3.4
07	210			3.6		2.3		3.4
08						2.6		3.4
09	260					2.8		3.3
10			190	4.1				3.3
11								3.4
12								3.4
13								3.4
14	240							3.4
15	230			—				3.4
16	200		---	---				3.4
17								3.5
18					100			3.4
19	200							3.4
20						—		3.3
21								3.3
22	210							3.2
23								3.2

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Median values.

Previously reported final values appeared in Table 44, IRPL-F12.

(Corrections and additions to previously published data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) May 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00								3.2
01								3.2
02	240							3.1
03	240							3.1
04			---	---	---	---		3.2
05	230					1.9		3.3
06	240		200					3.4
07			200	3.9		2.7		3.2
08								3.3
09	280							3.2
10	280		180					3.2
11				4.3				3.3
12	260							3.3
13								3.4
14				4.3				3.3
15								3.4
16								3.4
17	240			3.9				3.4
18	200		---		100			3.4
19							3.1	3.4
20						1.6	3.0	3.3
21	210						2.6	3.2
22							2.8	3.2
23							2.9	3.3

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Median values.

Previously reported final values appeared in Table 64, IRPL-F14.

Table 76

Alma Ata, U.S.S.R. (43.5°N, 76.5°E) April 1945

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	F2-M3000
00	240	4.4						
01	270	4.5						
02	270	4.1						
03	270	4.0						
04	270	4.0						
05	280	4.0			120	2.0		
06	260	4.8			110	2.3		
07	240	5.4			120	2.5		
08	240	5.9	240	4.3	120	2.8		
09	250	6.1	240	4.5	120	3.1		
10	240	6.6	220	4.5	120	3.5		
11	260	6.4	220	4.6	110	3.4		
12	300	6.3	220	4.6	100	3.3		
13	300	5.5		4.6	120	2.9		
14	280	5.8	220	4.2	120	3.0		
15	250	6.0			120	2.9		
16	260	6.2	240	4.1				
17	250	5.6	170	3.3	120	2.5		
18	240	6.1			120	2.2		
19	240	6.0				2.1		
20	250	5.4						
21	250	5.2						
22	270	4.9						
23	270	4.7						

Time: 75.0°E.
Length of time sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes. Manual operation.
Average values.

Table 77

(Corrections and additions to previously published data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270							2.9
01	270							3.0
02	270							2.9
03	280							3.1
04								3.0
05	270							3.0
06					---	---		3.2
07					110			3.4
08	210							3.5
09	220			3.8	110			3.5
10	220		200		100			3.5
11	210		190	3.9				3.6
12	210		190					3.6
13	210		180					3.5
14	210			---	100	2.8		3.5
15					100	2.6		3.5
16								3.7
17								3.7
18					---	---		3.6
19								3.5
20	210							3.4
21								3.3
22								3.2
23	250							3.0

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Median values.

Previously reported final values appeared in Table 43, IRPL-F11.

Table 78

(Corrections and additions to previously published data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.0
01	270							3.0
02								3.0
03								3.0
04								3.0
05	260							3.0
06								3.0
07								3.3
08								3.7
09					120			3.7
10								3.6
11	200					2.4		3.6
12								3.7
13						2.6		3.7
14						2.5		3.7
15					130			3.7
16					120	2.0		3.8
17	200					---		3.7
18								3.6
19								3.5
20								3.3
21	260							3.2
22	270							3.1
23								3.0

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Median values.

Previously reported final values appeared in Table 48, IRPL-F11.

Table 79

(Corrections and additions to previously published data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) January 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.1
01	260							3.1
02								3.0
03	260							3.1
04	255							3.0
05		2.6						3.2
06								3.0
07		2.3						3.1
08					---	---		3.4
09		5.1				1.8		3.8
10		5.9						3.8
11		6.2						3.8
12								3.8
13		6.5						3.9
14								3.9
15		5.5			---	1.9		3.8
16								3.8
17		2.8						3.6
18	225	2.9						3.6
19	245	2.3						3.3
20		2.2						3.2
21								3.1
22								3.1
23	270	2.7						3.1

Time: 60.0°E.
Length of time sweep: 1.5 Mc to 14.0 Mc in five to thirteen minutes. Manual operation.
Median values.

Previously reported final values appeared in Table 49, IRPL-F10.

Table 80

Moscow, U.S.S.R. (55.8°N, 37.6°E) December 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.9						
01		3.1						
02		3.1						
03		2.8						
04		2.7						
05		2.5						
06		2.7						
07		3.0						
08		4.2						
09		5.1						
10		5.8						
11		6.0						
12		6.1						
13		6.0						
14		5.5						
15		4.7						
16		3.8						
17		3.1						
18		2.8						
19		2.5						
20		2.6						
21		2.6						
22		2.7						
23		2.7						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

Table 81

Moscow, U.S.S.R. (55.8°N, 37.6°E) November 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.1						
01		3.1						
02		3.2						
03		3.1						
04		3.1						
05		2.9						
06		2.7						
07		3.9						
08		5.1						
09		5.5						
10		6.1						
11		6.2						
12		6.2						
13		6.2						
14		6.0						
15		5.0						
16		3.8						
17		3.1						
18		3.1						
19		2.9						
20		2.7						
21		2.7						
22		2.8						
23		3.0						

Time: 30.0°E.
Length of time sweep: 1.8 Mc to 11.0 Mc in ten minutes. Manual operation.
Average values.

Table 82

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) September 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	4.2						
01	260	4.1						
02								
03								
04								
05								
06								
07								
08								
09								
10	270	4.5	240	2.4				
11								
12	250	4.6	230	2.6				
13								
14	250	4.7	220	2.4				
15								
16								
17								
18								
19	240	5.0						
20								
21								
22	240	4.5	200	2.3				
23								

Time: 60.0°E.
Average values.

Table 83

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) August 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	3.9	250	2.1				
01	250	3.9	240	2.3				
02								
03								
04								
05								
06								
07								
08								
09								
10	330	4.5	220	2.8				
11								
12	320	4.4	220	2.8				
13								
14	300	4.6	220	2.8				
15								
16								
17								
18								
19	250	4.7	220	2.6				
20								
21								
22	250	4.3						
23								

Time: 60.0°E.
Average values.

Table 84

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) July 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	4.1		2.3				
01	240	4.2		2.3				
02								
03								
04								
05								
06								
07								
08								
09								
10	340	4.3		2.8				
11								
12	360	4.4		2.9				
13								
14	330	4.4		2.8				
15								
16								
17								
18								
19	290	4.6		2.6				
20								
21								
22	270	4.2		2.4				
23								

Time: 60.0°E.
Average values.

Table 85

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) June 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	4.4	210	2.4				
01	240	4.4	190	2.4				
02								
03								
04								
05								
06								
07								
08								
09								
10	380	4.3	210	2.9				
11								
12	370	4.3	190	2.9				
13								
14	350	4.4	190	3.0				
15								
16								
17								
18								
19	290	4.7	200	2.7				
20								
21								
22	260	4.4	210	2.5				
23								

Time: 60.0°E.
Average values.

Table 86

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) September 1943

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	3.8						
01	270	3.9						
02								
03								
04								
05								
06								
07								
08								
09								
10	280	4.3						
11								
12	270	4.5						
13								
14	260	4.1						
15								
16								
17								
18								
19	260	4.3						
20								
21								
22	270	4.2						
23								

Time: 60.0°E.
Average values.

Table 87

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.8°E) August 1943

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.9	220	2.3				
01	280	3.8	220	2.3				
02								
03								
04								
05								
06								
07								
08								
09								
10	290	4.3	230	2.8				
11								
12	320	4.5	220	2.8				
13								
14	320	4.4	220	2.9				
15								
16								
17								
18								
19	290	4.6	230	2.5				
20								
21								
22	290	4.2	240					
23								

Time: 60.0°E.
Average values.

TABLE 88

Washington, D.C. (Location) — Ionosphere Station

National Bureau Of Standards (Institution)

IONOSPHERE DATA-I

Hourly values of $h'F_2$ in {mc / km} for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	280	270	260	270	250	240	240	250	220	220	240	240	260	260	250	250	240	220	230	220	230	(260)	(300)	290
2	300	290	270	250	230	230	270	260	230	230	250	280	250	260	270	260	240	230	240	230	230	(260)	(280)	(280)
3	(270)	280	(260)	270	270	(290)	240	250	230	230	260	300	260	240	260	250	240	230	220	240	230	250	250	260
4	250	260	270	280	240	240	250	250	230	230	250	250	250	250	260	260	230	270	240	230	240	260	(280)	300
5	(290)	270	220	250	260	270	(280)	270	230	250	290	260	270	270	270	250	260	240	230	220	230	250	240	250
6	270	260	260	250	270	270	270	240	230	250	250	240	B	B	280	(270)	240	250	230	240	210	230	250	250
7	270	260	240	260	270	250^{K}	280^{K}	350^{K}	(290)^{K}	520^{K}	460^{K}	>600$^{G}_{K}$	680^{K}	640^{K}	520^{K}	450^{K}	350^{K}	320^{K}	380^{K}	A^{K}	A^{K}	A^{K}	(450)^{K}	400^{K}
8	(440)^{K}	(380)^{K}	370^{K}	(360)^{K}	(330)^{K}	[360]$^{B}_{K}$	[350]$^{B}_{K}$	(320)^{K}	280^{K}	(240)^{K}	>600$^{G}_{K}$	>600$^{G}_{K}$	720^{K}	480^{K}	[410]$^{B}_{K}$	330^{K}	290^{K}	240^{K}	250^{K}	230^{K}	240^{K}	240^{K}	240^{K}	270^{K}
9	(300)^{K}	300^{K}	280^{K}	290^{K}	270^{K}	(260)^{K}	(360)	250	230	240	240	(370)	(240)	240	270	240	230	230	240	230	220	230	240	250
10	270	280	280	260	300	230	270	240	230	240	(230)	230	270	270	(250)	270	230	230	210	220	240	260	250	250
11	260	260	260	260	260	250	260	230	220	220	240	260	240	(260)	250	240	240	230	(220)	(240)	(220)	240	260	260
12	280	270	260	260	240	220	280	240	230	240	220	250	240	250	250	240	230	230	220	240	230	230	230	240
13	250	250	270	290	300	300	260	270	230	220	240	250	250	240	220	230	240	230	220	220	230	230	220	250
14	260	260	250	(300)	290	280	260	280	240	230	240	240	270	260	250	260	250	240	220	210	210	240	260	270
15	290	300	270	270	300	300	310	280	260	270	300	290	270	260	270	250	240	230	220	220	230	250	240	240
16	260	250	260	260	260	260	250	240	220	250	250	250	260	240	250	240	230	220	230	230	230	240	250	240
17	230	250	240	260	230	230	280	230	230	230	250	250	260	260	250	250	230	220	210	230	220	250	250	250
18	250	250	260	250	270	250	250	220	220	230	240	250	260	260	260	260	240	230	220	220	220	250	250	260
19	260	270	270	270	270	280	230	260	230	230	230	250	270	280	260	260	250	240	210	210	230	230	260	260
20	290	270	250	240	250	270	280	250	240	230	250	280	260	260	280	260	240	260	240^{K}	230^{K}	260^{K}	260^{K}	260^{K}	(280)^{K}
21	260^{K}	(350)^{K}	330^{K}	310^{K}	290^{K}	270^{K}	300^{K}	250^{K}	260^{K}	290^{K}	310^{K}	340^{K}	360^{K}	370^{K}	380^{K}	400^{K}	320^{K}	270^{K}	260^{K}	260^{K}	270^{K}	240^{K}	290^{K}	300^{K}
22	320^{K}	320^{K}	290^{K}	260^{K}	290^{K}	(330)^{K}	(370)	250	230	240	250	280	280	290	290	270	250	240	210	220	230	270	270	300
23	290	290	280	270	250	300	300	260	240	250	240	240	270	280	260	240	240	220	210	200	220	220	260	260
24	290	290	270	250	260	240	240	230	230	250	260	260	250	260	280	270	260	230	220	200	220	240	240	(300)
25	(300)	300	280	240	210	210	210	230	240	240	240	260	260	260	250	270	240	240	220	220	220	240	260	290
26	300	290	260	250	250	260	280	240	230	230	240	260	270	270	260	250	250	230	230	220	220	230	240	250
27	260	260	(230)	260	250	250	250	220	240	230	240	240	270	250	250	250	250	230	220	210	220	240	250	260
28	250	260	240	250	240	250	250	230	220	230	240	240	240	240	240	240	240	220	200	200	200	240	240	280
29																								
30																								
31																								
Sum																								
Median	270	270	260	260	260	260	265	250	230	235	245	255	260	260	260	255	240	230	220	220	230	240	250	260

TABLE 89

IONOSPHERE DATA-2

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}F_2$ in Mc for February (Month) 1946

Records measured by: J M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.1	3.2	3.2	3.4^{F}	3.6	3.5	3.3	3.8	6.8	(7.5)	7.4	7.8	9.0	8.2	8.2	8.8	8.0	(7.4)	(6.2)	(6.4)	(4.5)	3.4	(3.5)	3.5
2	3.3	3.5	3.8	3.8	3.8	3.1	(2.7)	3.8	6.5	7.2	8.2	8.6	8.8	8.2	8.6	8.6	8.4	7.4	(7.6)	(7.2)	5.4	4.1	3.9	3.7
3	3.6	3.8	3.6	3.7	3.8	3.7	3.6	4.5	6.2	7.6	8.8	9.5	10.0	(8.2)	[8.9]^{C}	9.3	8.6	8.2	(7.8)	6.6	5.3	5.3	4.9	4.7
4	(4.4)	4.1	3.6^{F}	3.5^{F}	3.8^{F}	3.1^{F}	(2.8)	4.1	6.8	(7.4)	8.8	9.9	9.8	10.4	10.8	10.5	9.4	8.4	7.8	6.8	(5.8)	4.9	5.0	5.3
5	5.4	5.5	5.0	3.9	3.7	3.3	3.2	4.0	5.6	(6.4)	(7.8)	8.2	8.8	8.7	8.8	8.4	8.6	7.8	(8.0)	(6.6)	5.0	4.5	(4.5)	3.5
6	3.5	3.4^{F}	(2.6)^{F}	(2.7)^{F}	3.2	3.3	3.2^{F}	(4.4)	6.5	9.1	9.2	9.8	B	B	(10.2)	(10.2)	(9.7)	9.0	(8.6)	(6.3)	(6.0)	(5.1)	4.6^{F}	4.1^{F}
7	(4.1)^{F}	4.1^{F}	(4.0)^{F}	3.6^{F}	3.6^{F}	2.2$^{F}_{K}$	2.3$^{F}_{K}$	3.0$^{F}_{K}$	3.8$^{F}_{K}$	4.8^{K}	5.1^{K}	<4.1$^{G}_{K}$	4.8^{K}	5.1^{K}	(5.6)^{K}	6.2^{K}	6.6^{K}	(8.8)^{K}	(5.8)^{K}	[1.8]$^{A}_{K}$	[2.0]$^{A}_{K}$	[2.4]$^{A}_{K}$	(2.4)$^{F}_{K}$	2.3$^{F}_{K}$
8	2.2$^{F}_{K}$	2.2$^{F}_{K}$	2.4$^{F}_{K}$	2.2$^{F}_{K}$	1.7$^{F}_{K}$	[1.8]$^{B}_{K}$	[1.7]$^{B}_{K}$	(2.5)^{K}	3.6^{K}	(3.8)^{K}	<4.1$^{G}_{K}$	<(4.1)$^{G}_{K}$	4.7^{K}	4.9^{K}	(5.3)^{K}	6.4^{K}	6.6^{K}	6.4^{K}	6.8^{K}	(5.8)^{K}	(4.7)^{K}	3.7^{K}	3.2$^{F}_{K}$	2.7^{K}
9	2.5^{K}	2.5$^{F}_{K}$	2.3$^{F}_{K}$	2.1$^{F}_{K}$	2.0$^{F}_{K}$	1.7$^{F}_{K}$	1.7^{F}	3.8^{F}	7.2	(7.8)	8.2	(8.8)	(8.4)	(9.6)	(10.4)	(10.5)	(10.0)	9.0	(8.4)	(6.8)	5.8	4.7	4.2	3.6
10	3.4	3.1^{F}	3.1	2.8	2.7	2.4^{F}	2.4	(4.4)	(6.8)	8.2	8.2	(8.2)	(10.2)	(9.9)	(10.0)	(10.0)	(8.0)	(8.2)	(7.9)	(6.6)	5.1	4.8	4.5	4.1
11	3.8^{F}	3.6	3.5^{F}	3.2^{F}	3.0^{F}	2.6^{F}	2.3^{F}	(4.3)	(7.6)	(7.6)	8.8	10.0	10.4	10.8	10.5	(9.5)	10.0	(9.8)	(8.9)	(7.8)	(6.7)	5.0	4.5	4.1
12	3.9	4.0	3.8	3.7	(3.4)	(3.1)	2.3^{F}	4.7	(7.8)	(8.8)	9.2	9.8	(10.2)	10.2	10.8	10.6	9.8	9.4	(8.8)	7.6	7.2	6.4	5.8	(5.0)
13	4.5	3.8	3.5^{F}	(3.9)	(3.6)^{F}	3.7^{F}	3.8^{F}	5.1	(7.9)	(8.2)	C	C	10.8	10.6	10.4	10.4	10.4	9.8	8.6	7.0	6.2	5.3	4.3	3.6^{F}
14	3.2^{F}	2.9	2.8^{F}	2.1^{F}	2.1^{F}	(3.1)^{F}	2.7^{F}	4.1	7.4	8.2	8.7	8.8	10.2	10.8	10.7	10.8	(10.4)	(10.0)	10.2	(8.4)	5.8	4.7	(4.3)	3.8^{F}
15	4.2	(4.4)^{F}	4.0^{F}	3.3^{F}	2.7^{F}	2.9^{F}	2.7^{F}	4.0^{F}	5.1	6.0^{F}	8.0	8.6	9.2	8.6	8.0	8.4	7.6	7.4	6.4	5.8	5.5	5.1	4.8	4.1
16	3.8	3.6^{F}	3.4^{F}	3.2^{F}	3.2^{F}	3.0^{F}	2.7^{F}	4.5	6.6	7.8	9.4	8.6	10.0	9.6	9.4	9.2	9.2	8.6	(8.0)	7.0	6.6	6.0	(6.0)	5.6
17	5.0	4.3^{F}	4.3	4.1	3.8	[3.2]^{C}	2.7	(5.0)	7.2	8.0	8.4	9.4	9.6	10.0	9.6	9.2	9.2	8.5	(7.5)	6.4	5.2	4.6	4.4	4.5
18	4.1	3.7	3.6	3.6	3.3	3.2	3.1	4.5	6.6	8.4	8.6	8.8	9.4	9.4	9.6	(9.6)	9.7	9.4	(8.0)	7.4	5.8	5.0	4.8	4.7
19	4.5	4.2	4.1	4.2	3.9	2.7	2.3	4.0	6.8	7.7	9.0	9.4	9.4	10.6	10.2	10.8	10.6	10.6	(9.9)	(7.6)	(6.8)	5.3	5.1	4.8
20	(4.7)	5.0	4.8	4.3^{F}	3.6^{F}	3.4^{F}	3.2^{F}	4.4^{F}	7.1	7.0^{F}	7.4	7.6	8.1	8.5	8.4	9.4	9.2	8.6	(9.3)^{K}	7.8^{K}	7.0^{K}	6.6^{K}	6.8^{K}	(4.2)$^{F}_{K}$
21	(2.0)$^{F}_{K}$	2.0$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.4)$^{F}_{K}$	(1.4)$^{F}_{K}$	(2.4)$^{F}_{K}$	2.3$^{F}_{K}$	4.4^{K}	6.3^{K}	6.6$^{F}_{K}$	7.2^{K}	7.0^{K}	6.4^{K}	5.7^{K}	5.3^{K}	5.0^{K}	4.8^{K}	5.1^{K}	4.8^{K}	4.2^{K}	3.8^{K}	3.5^{K}	3.3^{K}	2.9^{K}
22	2.8^{K}	2.7^{K}	2.8^{K}	2.2^{K}	1.6$^{F}_{K}$	1.5$^{F}_{K}$	1.6^{F}	(4.4)	5.2^{F}	6.4	7.4	7.6	8.0	8.2	8.4	8.6	7.8	7.3	7.2	(6.2)	(5.0)	4.2^{F}	3.6^{F}	(3.3)^{F}
23	3.5^{F}	3.4^{F}	3.0^{F}	(2.5)^{F}	1.8^{F}	1.6^{F}	1.8^{F}	4.0^{F}	5.9	6.6	7.8	(8.2)	(8.6)	(8.6)	(8.7)	(8.8)	[8.6]^{C}	(8.6)	(8.0)	6.0	4.7	3.7^{F}	3.6	(3.4)
24	(2.9)^{F}	(2.4)^{F}	2.8^{F}	(2.8)^{F}	2.4^{F}	2.1^{F}	2.1^{F}	4.7^{F}	5.9	7.1	7.6	(8.3)	(8.4)	(8.0)	8.9	8.8	9.7	8.8	9.4	7.6	5.4	4.6	3.5	3.3
25	3.2^{F}	3.4^{F}	3.5^{F}	3.8^{F}	3.4^{F}	2.1^{F}	1.7^{F}	4.8	7.2	8.2	9.0	9.4	9.4	(8.9)	8.8	9.4	9.2	9.1	8.6	(7.2)	5.5	4.7	4.0	3.8^{F}
26	3.7^{F}	(3.4)^{F}	(3.1)^{F}	(3.3)^{F}	(2.9)^{F}	(2.5)^{F}	2.3^{F}	5.2	7.0	7.6	8.6	9.2	9.4	10.0	9.6	9.6	10.0	9.4	8.4	(6.6)	(6.1)	5.7	5.0	(4.3)
27	3.8^{F}	3.7^{F}	(3.6)^{F}	(3.5)^{F}	3.2^{F}	3.1^{F}	3.0^{F}	5.8	7.8	8.9	9.1	9.4	10.2	9.6	9.6	9.8	10.2	(10.0)	(8.9)	(7.8)	6.6	5.7	4.9	4.5
28	4.3	4.0	4.1	3.9	3.6	3.5	3.5	(6.4)	7.6	8.9	9.2	(9.6)	(10.5)	(10.1)	(9.8)	(9.9)	(9.5)	(9.8)	(9.2)	(7.8)	(7.0)	(6.4)	5.8	5.2
29																								
30																								
31																								
Sum																								
Median	3.8	3.6	3.5	3.4	3.2	3.0	2.7	4.1	6.8	7.6	8.4	8.8	9.4	9.4	9.5	9.4	9.2	8.7	(8.0)	(6.8)	5.6	4.8	4.5	4.1

TABLE 90

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

IONOSPHERE DATA-3

Half hourly values of f^0F_2 in {No Code} for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75°W MERIDIAN

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	3.2	3.2	3.5	3.5^{F}	3.6	3.5	3.0	5.0	(7.4)	7.3	7.6	8.3	8.2	8.0	8.2	8.6	7.6	6.4	(6.4)	(6.0)	(4.2)	3.5	3.4	3.5
2	3.5	3.6	3.9	3.9	3.5	2.8	2.6	(5.1)	(7.3)	7.6	8.3	9.0	8.6	8.6	8.4	8.2	7.8	(7.8)	(7.4)	(6.2)	4.5	3.9	3.8	3.7
3	3.7	3.6	3.9	3.8	3.7	3.8	3.8	(5.4)	7.0	8.4	(8.2)	9.8	9.0	[8.4]^{C}	[9.2]^{C}	8.8	8.4	8.6	7.4	6.7	(5.5)	(5.3)	4.8	5.0
4	4.3	3.9	[3.5]^{C}	3.6^{F}	3.5^{F}	3.0	2.8^{F}	5.1	(8.0)	7.6	9.4	9.8	10.2	10.5	(10.5)	9.6	(9.2)	8.4	7.2	6.6	5.2	(4.7)	5.2	5.4
5	5.5	5.5	4.5	3.8	3.6	3.3	3.2	4.9	6.0	6.6	8.0	8.7	9.1	8.8	9.5	8.5	8.3	(7.8)	(7.6)	(6.2)^{J}	4.7	4.4	(4.0)	3.6
6	3.4^{F}	(2.7)^{F}	(2.7)^{F}	(3.1)^{F}	3.2	3.2^{F}	3.3^{F}	(6.0)	(7.6)^{J}	8.4	9.5	(9.6)	B	B	10.5	(10.0)	9.4	(8.3)	(6.8)	7.0	5.4	4.7	(4.5)^{F}	(4.1)^{F}
7	(4.2)^{F}	(4.3)^{F}	(3.7)^{F}	3.5^{F}	3.6^{K}	1.8$^{F}_{K}$	(4.1)$^{F}_{K}$	3.2$^{F}_{K}$	4.2$^{F}_{K}$	<4.1$^{G}_{K}$	5.0$^{F}_{K}$	<4.1$^{G}_{K}$	4.6^{K}	5.1^{K}	(5.6)^{K}	6.5$^{F}_{K}$	6.7$^{F}_{K}$	6.4^{K}	(2.0)$^{F}_{K}$	B^{K}	2.3^{K}	2.4$^{F}_{K}$	2.3$^{F}_{K}$	2.5$^{F}_{K}$
8	2.1$^{F}_{K}$	2.2$^{F}_{K}$	(2.2)$^{F}_{K}$	[2.0]$^{B}_{K}$	1.8$^{F}_{K}$	[1.7]$^{B}_{K}$	[1.7]$^{B}_{K}$	3.3$^{F}_{K}$	3.6^{K}	<3.9$^{G}_{K}$	<(4.1)$^{G}_{K}$	<4.1$^{G}_{K}$	4.8^{K}	5.2^{K}	(6.8)^{K}	6.6^{K}	6.6^{K}	6.2^{K}	6.7^{K}	5.1^{K}	4.2^{K}	3.4^{K}	3.1$^{F}_{K}$	2.5$^{F}_{K}$
9	2.4$^{F}_{K}$	2.3$^{F}_{K}$	2.1$^{F}_{K}$	2.0$^{F}_{K}$	1.8$^{F}_{K}$	1.7$^{F}_{K}$	2.3^{F}	5.7	(6.6)	(8.0)	(8.0)	[9.1]^{B}	(9.5)	(10.1)	10.4	(10.4)	9.6	8.2	6.4	6.6	(5.5)	4.7	4.0	3.4^{F}
10	3.4^{F}	3.1	3.1	2.7	2.9	2.4	2.6^{F}	(6.2)	7.6	(7.8)	(10.1)	(11.0)	(10.3)	(10.1)	(9.4)	9.5	(9.1)	(9.2)	(7.2)	(5.6)	(5.0)	4.8	4.1	3.9
11	3.7	3.6^{F}	3.2^{F}	2.9^{F}	2.8^{F}	(2.4)^{F}	2.6^{F}	6.6	(7.8)	(9.4)	9.4	(9.8)	10.6	10.6	(10.6)	10.4	10.0	(9.7)	(8.0)	7.8	(5.7)	4.7	4.3	4.0
12	3.8	4.0	3.7	3.7	(3.4)	2.6^{F}	2.6^{F}	6.6	(8.6)	9.2	9.8	10.6	10.2	10.8	10.8	10.4	9.4	9.4	(8.4)	(7.8)	7.2	(6.2)	5.3	4.5
13	4.2	3.6^{F}	(3.5)^{F}	(3.7)^{F}	(3.6)^{F}	3.7^{F}	3.6^{F}	7.0	8.2	C	C	(11.4)	11.2	10.6	10.2	10.4	(10.0)	(9.0)	7.6	6.6	5.9	5.0	3.8	3.5^{F}
14	3.1^{F}	2.8	2.5^{F}	1.9^{F}	2.0^{F}	2.7^{F}	2.9^{F}	5.8^{F}	8.2	8.6	9.0	9.7	10.4	10.7	10.0	10.6	(10.2)	(10.6)	(10.0)	7.0	5.1	4.6	4.2	(4.2)^{F}
15	(4.4)^{F}	4.3^{F}	3.5^{F}	2.9^{F}	(2.8)^{F}	2.7^{F}	3.1^{F}	4.7	6.0	6.6	8.4	9.2	9.2	8.1	8.4	8.2	7.6	6.8	(6.2)	6.2	5.3	4.9	4.6	4.0
16	3.9	3.6^{F}	3.2^{F}	3.2^{F}	3.1^{F}	3.0^{F}	3.0^{F}	5.6	7.4	8.8^{H}	8.2^{F}	9.2	10.2	9.4	9.6	9.2	9.2	8.2	7.6	6.7	(6.2)	5.8	5.9	5.4
17	4.5	4.4	4.0	4.0	3.4^{F}	2.8	3.2^{F}	6.2	(7.8)	8.2	8.8	9.2	9.8	9.8	9.6	9.4	9.0	(8.0)	6.5	5.8	4.6	4.6	4.6	4.2
18	4.0	3.7	3.6	3.5	3.2	3.2	3.3	6.0	7.6	7.8	8.8	8.6	9.6	9.4	9.6	9.7	9.4	(9.0)	7.8	6.8	5.3	5.1	4.6	4.4
19	4.2	4.1	(4.0)	4.0	3.5	2.5^{F}	2.8	(5.6)	(7.2)	(8.0)	9.6	9.3	10.0	10.6	10.8	10.2	10.8	(10.0)	(9.0)	(7.0)	(6.0)	5.2	4.9	4.5
20	4.9	(4.7)	(4.3)	3.8^{F}	3.5^{F}	3.3^{F}	3.4^{F}	(6.0)	7.4	7.4	7.6^{F}	8.2	8.4	8.8	9.2	9.4	8.7	8.5	8.4^{K}	7.0^{K}	7.4^{K}	6.8^{K}	(5.8)$^{J}_{K}$	2.3$^{F}_{K}$
21	2.1$^{F}_{K}$	(1.7)$^{F}_{K}$	(1.6)$^{F}_{K}$	(1.4)$^{F}_{K}$	(1.6)$^{F}_{K}$	2.3$^{F}_{K}$	2.6$^{F}_{K}$	5.7$^{F}_{K}$	6.2$^{F}_{K}$	6.8^{R}	6.9^{K}	6.7^{K}	5.9^{K}	5.3^{K}	5.2^{K}	5.1^{K}	5.0^{K}	5.0^{K}	4.5^{K}	4.1^{K}	3.6^{K}	3.2^{K}	2.9^{K}	2.7^{K}
22	2.7^{K}	2.7^{K}	2.6^{K}	1.9^{K}	1.5$^{F}_{K}$	1.6$^{F}_{K}$	2.4^{F}	(5.4)^{J}	6.1	7.0	7.4	7.8	8.0	8.2	8.8	7.9	7.2	7.2	6.8	5.8	4.4	4.0	3.4^{F}	3.4^{F}
23	3.5^{F}	3.2^{F}	(2.7)^{F}	2.0^{F}	1.6^{F}	1.8^{F}	2.3^{F}	5.0	6.4	7.2	8.0	(7.8)	(9.7)	(9.1)	(9.6)	(8.6)	(8.6)	(8.0)	(7.2)	(5.1)	4.3	(3.5)	(3.5)	(3.3)
24	(2.8)^{F}	(2.8)^{F}	(2.8)^{F}	2.5^{F}	(2.4)^{F}	(2.0)^{F}	(2.9)^{F}	5.7	6.3	7.2	(7.8)	[8.4]^{C}	[8.3]^{C}	[8.4]^{C}	8.6	9.3	9.6	9.0	8.8	6.2	5.0	4.0	(3.3)	3.2
25	3.1^{F}	3.4^{F}	3.6^{F}	3.6^{F}	2.7^{F}	2.1^{F}	2.9^{F}	6.0	8.3	9.0	9.4	9.4	9.8	9.0	9.2	9.2	9.0	9.0	7.6	(6.2)	4.7	(4.4)	3.8^{F}	3.8^{F}
26	3.8^{F}	(3.1)^{F}	(3.3)^{F}	(3.2)^{F}	2.3^{F}	2.3^{F}	3.2^{F}	6.4	8.2	7.6^{F}	9.0	9.5	9.8	10.0	9.6	10.2	9.6	9.0	7.7	(6.2)	(5.9)	(5.2)	4.7	4.2
27	3.6^{F}	3.7^{F}	(3.2)^{F}	(3.3)^{F}	3.0^{F}	3.2^{F}	3.9^{F}	6.6	8.4	9.0	9.4	9.8	(10.1)	9.8	(9.8)	10.0	(10.2)	9.6	(8.2)	(6.9)	5.8	4.9	4.5	(4.3)^{F}
28	4.1	4.0	4.0	3.8	3.5	(3.4)	4.3	7.2	(8.4)	9.4	9.2	9.5	(10.2)	[10.0]^{B}	(10.0)	(10.4)	(9.6)	(9.8)	(8.7)	7.6	(6.7)	6.2	5.5	5.0
29																								
30																								
31																								
Sum																								
Median	3.7	3.6	3.5	3.4	3.2	2.7	3.0	5.7	7.4	7.8	8.4	9.2	9.7	9.4	9.6	9.4	9.2	8.4	7.5	6.6	5.2	4.7	4.2	4.0

TABLE 91

IONOSPHERE DATA-4

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_1$ in [mi / km] for February (y) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											230	210	220	210	220	220								
2											220	230	210	220	230	220								
3											240	220	220	[230]^{c}	230	230	B							
4											220	220	210	220	220	240								
5										210	200	220	230	220	210	220	240							
6											220	220	B	B	B	B								
7									K	270^{K}	260^{K}	230^{K}	270^{K}	[270]$^{B}_{K}$	260^{K}	260^{K}	270^{K}	300^{K}						
8									K	A	240^{K}	(240)^{K}	250^{K}	250^{K}	[250]$^{B}_{K}$	250^{K}	260^{K}	K						
9											230	210	230	210	230	230								
10										220	200	210	240	230	(220)	210								
11											230	220	220	[220]^{B}	240									
12												220	[220]^{B}	(230)	240	230								
13											220	[230]^{c}	220											
14											220	210	230	220	220	230	220							
15										250	220	210	220	210	210	230	230							
16										190^{H}	210	190	200	200	210	220								
17										220	200	200^{H}	200	210	210	230								
18										210	200	210	220	200^{H}	210	220								
19									210	220	200	210	210	220	230	210	230							
20									220	200	200	210	200	210	240	230	230	240						
21									230^{K}	230$^{H}_{K}$	230^{K}	250^{K}	240^{K}	220^{K}	200$^{H}_{K}$	220^{K}	240^{K}	260^{K}						
22									230	210	220	210	200^{H}	220	210	220	220	220						
23										220	200	200	200	200	220	220	220							
24										210	210	200	220	200	200	220	250							
25										220	210	210	210	210	230	230	230							
26										220	210	220	210	230	230	220	240							
27											210	220	220	230	220	220	230							
28										220	220	200	180	200	220	210	220							
29																								
30																								
31																								
Sum																								
Median										220	220	210	220	220	220	220	230							

TABLE 92

IONOSPHERE DATA-5

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{o}F_1$ in {Mo} for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											L	4.3	L	L	L	L								
2											L	5.0	L	L	L	L								
3											L	L	L	L	L	L	B							
4											L	L	L	(4.6)	L	L								
5										L	L	[4.7]^{L}	[4.8]^{L}	(4.7)	4.4	L	L							
6											L	L	B	B	B	B								
7									^{K}	4.2^{K}	4.2^{K}	4.1^{K}	4.2^{K}	(4.5)^{K}	4.5^{K}	4.2^{K}	[4.2]^{K}	L^{K}						
8									^{K}	^{K}	4.1^{K}	(4.1)^{K}	4.1^{K}	4.4^{K}	[4.4]$^{B}_{K}$	4.2^{K}	L^{K}	^{K}						
9											L	5.3	L	L	[4.2]^{L}	L								
10										L	[4.2]^{L}	[4.7]^{L}	(5.1)	L	L	L								
11											L	L	L	B	L									
12											L	L	B	L	L									
13											L	C	L											
14											L	L	L	L	L	L	L							
15										L	(4.7)	4.6	4.7	(4.5)	(4.4)	L	L							
16										L	L	L	4.8	L	L	L								
17										L	L	L H	L	L	L	L								
18										L	(4.2)	L	L	L H	L	L								
19									L	L	L	L	4.7	4.3	L	L	L							
20									L	3.8	[4.2]^{L}	(4.8)	(4.7)	[4.7]^{L}	(5.0)	(4.4)	L	L						
21									L^{K}	L H^{K}	(4.3)^{K}	4.3^{K}	4.2^{K}	4.2^{K}	4.1$^{H}_{K}$	4.1^{K}	(3.6)^{K}	L^{K}						
22									L	L	L	4.8	4.9^{H}	[4.7]^{L}	4.6	(4.3)	L	L						
23										L	L	4.6	4.8	L	L	L	L							
24										L	L	L	L	[4.6]^{L}	(4.6)	L	L							
25										L	L	4.8	4.8	[4.8]^{L}	L	L	L							
26										L	L	[5.0]^{L}	(5.0)	(5.0)	L	L	L							
27											L	L	L	L	L	L	L							
28										L	L	L	L	L	L	L	L							
29																								
30																								
31																								
Sum																								
Median										L	(4.2)	4.7	4.8	(4.6)	(4.4)	4.2	L							

TABLE 93

IONOSPHERE DATA-6

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of h'_E in {Mc / km} for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									120^{H}	110	110^{H}	110	110^{H}	110^{H}	110	110	110	130^{H}						
2									110	110	110	120	110	110	110	110	120	B						
3									120	110	120	(120)	110	[110]^{c}	110	120	[120]$_{B}$	120						
4									120	110	110	110	110	110	120	110	110	120						
5									(120)	110	110	120	110	120	110	110	110^{H}	100^{H}						
6									110	110	110	110	B	B	B	B	120	130						
7								K	110^{K}	110^{K}	110^{K}	100^{K}	100^{K}	[120]$^{B}_{K}$	110^{K}	110^{K}	110^{K}	130^{K}	K					
8								K	(120)^{K}	130^{K}	110^{K}	[110]$^{B}_{K}$	110^{K}	120^{K}	[110]$^{B}_{K}$	110^{K}	120^{K}	(130)^{K}	K					
9									100	(120)	110	110	[110]^{B}	110	120	110	120	110						
10									130	110	110	110	(110)	110	(120)	(110)	110	C						
11									120^{H}	120	(120)	[120]^{c}	110	[110]^{B}	(120)	110	110	C						
12									(120)	120	110	(120)	[110]^{B}	110	120	110	120	(130)						
13								(160)	110	[110]^{c}	110	[110]^{c}	110	110	110	110	120	130						
14									110	110	110	110	110	110	110	110	100	110^{H}						
15									110^{H}	110^{H}	110^{H}	110^{H}	100	100	110	100	120	120						
16									110	110	110	110	110	100	100	100	110	120						
17									110	110	110	110	100	110	H0	110	100	120						
18									110	110^{H}	110	110	110	100	110	110	110	120						
19									120	120	110	110	110	110	110	110	110^{H}	120^{H}						
20									110	110	110	110	110	110	110	110	110	120	K					
21								(130)$^{H}_{K}$	120^{K}	110^{K}	120^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	120^{K}	120$^{H}_{K}$	K					
22								110	110	110	110	110	110	110	110	110	110	120						
23								(170)	100	110	100	100	100	100	80	80	100	100						
24								110	110	110	110^{H}	100	100	100	110	110	100	120						
25								[110]$^{c}_{H}$	110	110	110	110	100	110	110	110	110	100						
26								CH	110	110	110	110^{H}	110	110	110	110	110	110	(110)^{H}					
27								(130)^{H}	110	110	110	110	110	110	110	110	110	110						
28								(120)^{H}	110	110	110	100	90	90	(100)	100	100	90						
29																								
30																								
31																								
Sum																								
Median								(125)	110	110	110	110	110	110	110	110	110	120						

TABLE 94

IONOSPHERE DATA-7

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of $f^{o}E$ in $\{^{Mc}_{Kc}$ for February 1946
(Month)

Records measured by: J.M.C.
J.J.H.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									2.1 H	[2.8] A	3.0 H	3.3	3.4 H	3.2 H	[3.2] A	3.0	(3.1)	1.9 H						
2									(2.5)	2.8	3.2	3.5	3.5	3.4	3.3	3.1	B	B						
3									(2.3)	3.0	(3.1)	3.5	3.5	[3.4] C	3.3	(3.0)	[2.5] B	C						
4									(2.1)	(2.6)	(3.1)	(3.3)	3.4	(3.4)	[3.3] C	(3.0)	2.7	B						
5									(2.2)	(2.7)	[3.1] B	(3.3)	(3.4)	(3.4)	B	A	2.4 H	(2.0) H						
6									[2.5] A	(3.0)	[3.2] A	B	B	B	B	B	3.1	2.6						
7								K	(2.4) K	(2.8) K	3.2 K	3.4 K	(3.5) K	[3.4] B K	3.2 K	3.0 K	(2.4) K	(2.2) K	K					
8								K	(2.3) K	[2.8] A K	(3.0) K	B K	B K	3.3 K	[3.2] B K	(3.1) K	(2.8) K	2.2 K	K					
9									2.4	(3.0)	[3.1] C	C	B	(3.4)	(3.4)	(3.0)	2.8	2.1						
10									[2.2] C	2.8	3.1	[3.3] C	[3.5] C	3.5	3.4	(3.1)	C	C						
11									2.3 H	[2.6] C	[3.0] C	[3.3] C	[3.5] A	B	A	(3.0)	(2.7)	C						
12									(2.7)	(3.0)	C	C	B	(3.5)	A	C	[2.8] A	(2.2)						
13								2.1	2.3	[2.9] C	(3.2)	C	A	A	(3.3)	[3.2] C	(2.8)	[2.3] A						
14								.	2.3	2.7	3.1	(3.3)	3.5	3.5	3.3	3.0	2.7	1.9 H						
15									2.1 H	2.6 H	(3.0) H	3.2 H	3.4	(3.3)	(3.2)	(2.9)	2.6	2.1						
16									[2.0] A	(2.8)	(3.0)	(3.2)	3.4	3.3	3.2	(2.9)	2.6	2.1						
17									2.2	2.7	3.1	3.3	3.4	3.4	3.3	(3.0)	(2.5)	2.0						
18									(2.4)	2.7 H	(3.0)	3.3	3.4	3.4	3.3	(3.1)	2.6	2.1						
19									2.2	2.7	3.0	(3.2)	3.3	3.3	3.2	(3.0)	2.4 H	1.8 H						
20									2.1	(2.7)	(3.0)	(3.3)	3.3	3.3	3.1	3.0	2.7	2.0	K					
21								(1.5) H K	[2.3] A K	2.7 K	(2.9) K	[3.0] C K	[3.1] C K	(2.9) K	(3.1) K	[2.9] C K	2.7 K	2.0 H K	K					
22								A	2.3	2.6	(3.0)	(3.2)	3.3	(3.2)	(3.2)	(3.0)	2.7	2.1						
23								(1.6)	(2.3)	(2.8)	(3.0)	C	C	C	(3.1)	(3.0)	(2.9)	(2.2)						
24								(1.6)	2.3	(2.8)	3.1 H	C	C	C	(3.3)	(3.1)	2.7	[2.0] A						
25								1.5 H	2.3	2.8	(3.2)	[3.3] C	[3.4] C	(3.3)	(3.2)	(3.0)	2.7	A						
26								C H	(2.3)	(3.0)	3.3	3.5 H	3.6	3.5	3.4	3.3	2.8	(2.2)	(1.4) H					
27								1.6 H	2.6	3.0	3.4	3.5	3.7	3.7	3.4	(3.1)	2.8	(2.3)						
28								1.6 H	2.7	3.1	3.5	(3.6)	(3.7)	(3.5)	[3.6] A	(3.2)	2.8	A						
29																								
30																								
31																								
Sum																								
Median								1.6	2.3	2.8	(3.1)	(3.3)	3.4	3.4	3.3	(3.0)	2.7	2.1						

TABLE 95

IONOSPHERE DATA - 8

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_s in {Mc / km} for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1										(3.8) 110			4.2 100	3.8 130	3.9 110									
2									3.9 110	3.7 100	3.6 150		3.5 120	3.6 130	3.5 120	3.8 110	3.4 110	3.9 110						
3			2.4 120								5.1 100	3.8 100	3.9 90											
4	2.4 100		1.2 110						3.9 130	5.2 120	6.5 110	3.8 110		7.5 100		4.1 110								
5			2.3 120							3.9 110			3.9 120			3.8 110	2.7 130	2.7 100				2.3 140	2.4 120	2.7 110
6		2.2 110	2.1 120					(3.5) 120	3.7 110	5.2 110	3.8 110	4.0 110						2.3 100		2.5 110			2.2 120	2.4 110
7					2.2 110	2.7 150	2.8 100	3.8 100	2.4 110	(4.4) 110						4.0 150	2.9 160	3.8 100		2.0 150	3.8 160	2.7 130	2.7 150	2.8 130
8	1.7 180		2.2 130	2.4 120				2.0 110		2.5 130								2.7 100	2.8 100					2.7 110
9	2.3 110	2.4 110	3.8 110	2.7 120			2.7 110	2.4 100		3.7 110							3.7 110	3.8 100						
10										(3.3) 140					(3.4) 130									
11													3.8 110		4.0 110	3.3 110	2.9 120							
12														3.8 130	3.8 120	3.5 130	3.7 110							
13													3.7 110	3.8 110	3.6 130	3.4 130	2.7 130	2.3 130		3.8 120	4.2 110			
14			3.8 110	2.7 110					2.7 120		3.9 130			3.7 120	3.7 120	4.1 120	2.4 100	2.5 100			2.2 120			
15								2.5 110	3.8 100	3.8 110	3.8 110	(5.1) 110	3.8 110	3.8 110	3.8 110	3.7 110		1.9 120	2.1 110	1.7 120				
16			2.2 100						4.1 110	4.1 100		3.8 110	(3.7) 120	3.8 100	3.8 100	3.9 100	3.8 100	3.8 100	2.7 110					
17								2.4 110	2.7 110	3.7 140			3.8 100		3.8 130	3.7 100	4.1 100	3.8 100	(4.3) 100					
18								2.4 100	5.0 110						3.7 120			2.3 100						
19									2.4 120			3.4 120	3.4 110				(2.7) 120							2.8 110
20	2.4 110	2.2 110						4.0 110	4.1 110		3.4 110		3.7 130	3.5 120	3.3 120	3.1 120	3.9 120	4.0 100						
21			2.4 160					5.0 110	5.0 110															
22							2.2 130	3.8 110	3.8 140	3.8 140	3.9 120	3.8 110	6.4 110		3.8 110		2.4 130	4.1 100	4.0 110		2.4 110		2.3 100	2.3 100
23	4.0 110	(4.0) 100	2.3 130	3.8 110	4.9 100	(2.4) 100	5.6 110	2.4 110	3.3 100	4.1 110		4.3 100												
24					0.8 110	(0.8) 110	0.8 110	(2.1) 110							3.4 130	3.7 120	3.9 110	(2.7) 120						
25					2.6 110	(2.2) 100	(2.3) 110	5.0 110						3.6 120	3.8 120	3.6 110	3.8 110	3.8 100	(3.3) 100					
26		2.2 130					2.1 110	3.8 110		3.8 110			3.8 130	4.0 120	3.7 130	3.5 120	3.7 120	2.4 120						
27						1.9 110	3.6 110	4.0 100	(4.5) 110		4.0 110			3.9 120	4.1 100	3.8 120	(3.8) 120	2.4 120	2.2 100					
28						0.8 130		3.8 100	(3.5) 100			3.9 90		3.9 120	3.8 100		4.3 100	3.8 90	2.6 100	2.8 80	2.4 80	2.3 100	2.3 100	2.3 90
29																								
30																								
31																								
Sum																								
Median	**	**	**	**	**	**	**	2.2	2.6	2.9	**	**	**	**	3.6	3.4	2.7	2.4	**	**	**	**	**	**

** Median fE_s less than median f^oE, or less than lower frequency limit of recorder.

TABLE 96

IONOSPHERE DATA - 9

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M1500 for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.0	2.0	2.0	2.0^{F}	2.1	2.0	2.2	2.2	2.2	(2.1)	2.3	2.1	2.3	2.3	2.1	2.1	2.3	(2.2)	(2.1)	(2.2)	(2.4)	2.0	(1.8)	1.9
2	1.9	2.0	1.9	2.0	2.2	2.1	(2.0)	1.9	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	(2.2)	(2.4)	2.3	2.0	2.0	2.0
3	2.0	1.9	1.9	2.0	1.9	1.9	2.0	2.1	2.3	2.3	2.2	2.1	2.2	(2.3)	C	2.2	2.1	(2.2)	(2.1)	2.1	2.1	2.1	2.2	2.0
4	2.0	2.1	2.1^{F}	2.0^{F}	2.1^{F}	2.1^{F}	(2.0)	2.2	2.3	(2.3)	2.1	2.2	2.1	2.1	2.1	(2.1)	2.3	2.1	2.2	2.2	(2.3)	2.0	1.9	1.9
5	1.9	2.0	2.1	1.9	1.9	1.8	1.9	2.1	(2.4)	(2.3)	(2.1)	2.2	2.1	2.2	2.1	2.1	2.1	2.1	(2.1)	(2.1)	2.1	2.1	(2.2)	2.0
6	2.1	1.9^{F}	(2.0)^{F}	(2.1)^{F}	1.9	1.9	2.0^{F}	(2.2)	2.3	2.3	2.3	2.0	B	B	(2.0)	(2.1)	(2.3)	2.3	2.1	(2.2)	(2.4)	(2.2)	(2.2)^{F}	(2.1)^{F}
7	(2.0)^{F}	(2.2)^{F}	(2.2)^{F}	(2.0)^{F}	(2.1)^{F}	(2.3)$^{F}_{K}$	(2.3)$^{F}_{K}$	1.7$^{F}_{K}$	1.9$^{F}_{K}$	1.6^{K}	1.7^{K}	G^{K}	1.4^{K}	1.4^{K}	(1.6)^{K}	(1.6)^{K}	1.8^{K}	(1.8)^{K}	(1.6)^{K}	A^{K}	A^{K}	A^{K}	(1.5)$^{F}_{K}$	1.5)$^{F}_{K}$
8	(1.5)$^{F}_{K}$	(1.6)$^{F}_{K}$	(1.7)$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.9)$^{F}_{K}$	B^{K}	B^{K}	(2.0)^{K}	2.0^{K}	(2.3)^{K}	G^{K}	G^{K}	(1.4)^{K}	1.7^{K}	B^{K}	1.9^{K}	(2.1)^{K}	2.0^{K}	2.0^{K}	(2.3)^{K}	(2.1)^{K}	2.0^{K}	2.1$^{F}_{K}$	2.0^{K}
9	2.0$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.1)$^{F}_{K}$	(1.6)^{F}	2.3^{F}	2.5	(2.2)	2.3	(1.8)	(2.4)	2.2	(2.2)	(2.1)	(2.1)	2.2	(2.2)	(2.2)	2.2	2.2	2.1	2.1
10	2.0	1.9^{F}	1.9	1.9	1.9	2.1^{F}	2.0	(2.2)	(2.5)	2.5	2.1	(2.4)	(2.3)	(2.3)	(2.4)	(2.3)	(2.5)	(2.3)	(2.3)	(2.2)	2.0	2.0	2.2	2.0
11	2.1^{F}	1.9	1.9^{F}	1.9^{F}	2.0^{F}	(2.0)^{F}	2.0^{F}	(2.3)	(2.4)	(2.4)	2.1	2.3	2.0	(2.1)	2.1	(2.2)	2.2	(2.2)	(2.3)	(2.3)	(2.2)	2.0	1.9	2.0
12	(1.8)	(1.9)	2.1	2.0	(2.3)	(2.2)	(2.1)^{F}	2.0	(2.5)	(2.5)	2.2	2.2	(2.3)	2.0	2.2	2.1	2.1	2.1	(2.2)	2.0	2.0	2.0	(2.1)	(2.1)
13	2.0	2.1	1.9^{F}	(1.8)	(1.8)^{F}	(1.8)^{F}	2.1^{F}	2.1	(2.3)	C	C	C	2.1	2.1	2.2	2.1	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.1^{F}
14	2.1^{F}	2.0	2.2^{F}	(2.0)^{F}	(2.2)^{F}	(2.1)^{F}	(2.1)^{F}	2.1	2.4	2.3	2.2	2.0	2.2	2.1	2.1	2.0	(2.2)	2.3	(2.1)	(2.3)	2.2	2.0	(2.0)	(1.8)^{F}
15	1.9	(1.8)^{F}	1.9^{F}	(1.9)^{F}	1.9^{F}	1.7^{F}	(1.9)^{F}	2.0^{F}	2.3	2.1^{F}	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.0	2.1	2.1
16	2.0	2.1^{F}	2.1^{F}	2.0^{F}	2.1^{F}	2.0^{F}	2.2^{F}	2.3	2.4	2.2	2.5	2.2	2.2	2.2	2.2	2.1	2.1	2.1	(2.2)	2.1	2.0	2.0	(2.1)	(2.2)
17	2.2	2.2^{F}	2.1	2.1	2.2	C	2.0	(2.4)	2.5	2.4	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	(2.1)	2.1	2.2	2.1	2.0	2.1
18	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.4	2.4	2.3	2.2	2.2	2.1	2.2	2.1	(2.1)	2.2	(2.3)	(2.2)	2.2	2.2	2.0	2.0	2.0
19	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.2	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.1	2.1	2.1	(2.3)	(2.1)	(2.2)	2.2	2.0	1.9
20	(2.0)	2.0	2.0	(2.1)^{F}	(2.1)^{F}	(2.0)^{F}	(2.0)^{F}	2.2^{F}	2.4	(2.3)^{F}	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.0	(2.1)^{K}	2.1^{K}	1.9^{K}	1.8^{K}	(1.9)^{K}	(1.9)$^{F}_{K}$
21	(2.1)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.8)$^{F}_{K}$	(2.3)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.9)^{K}	2.3^{K}	2.1$^{F}_{K}$	1.9^{K}	1.9^{K}	1.8^{K}	1.9^{K}	1.9^{K}	1.9^{K}	2.0^{K}	2.1^{K}	2.0^{K}	1.9^{K}	1.9^{K}	1.9^{K}	1.9^{K}	1.8^{K}
22	1.8^{K}	1.8^{K}	2.0^{K}	2.1^{K}	1.9$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.7)^{F}	(2.1)	(2.4)^{F}	2.2	2.3	2.1	2.3	2.1	2.1	2.2	2.2	2.2	2.2	(2.2)	(2.2)	2.1^{F}	2.0^{F}	(2.0)^{F}
23	(1.9)^{F}	(1.9)^{F}	(1.9)^{F}	(2.0)^{F}	2.1^{F}	(1.9)^{F}	(2.0)^{F}	(2.3)^{F}	2.3	2.3	2.2	(2.3)	(2.1)	(2.3)	(2.3)	(2.4)	C	(2.6)	(2.4)	2.3	2.1	2.3^{F}	(2.0)	(2.0)
24	(2.1)^{F}	(2.1)^{F}	(2.0)^{F}	(2.0)^{F}	(2.2)^{F}	(2.3)^{F}	(2.3)^{F}	(2.3)^{F}	2.3	2.3	2.2	(2.3)	(2.4)	(2.3)	2.1	2.0	2.1	2.2	2.3	2.2	2.2	2.2	2.0	1.8
25	1.8^{F}	(1.9)^{F}	(1.9)^{F}	2.1^{F}	2.4^{F}	2.2^{F}	(2.4)^{F}	2.3	2.3	2.3	2.2	2.2	2.2	(2.3)	2.1	2.2	2.2	2.1	2.2	(2.2)	2.2	2.1	2.0	(2.0)^{F}
26	(1.9)^{F}	(1.9)^{F}	(2.1)^{F}	(2.0)^{F}	(2.1)^{F}	(2.1)^{F}	(2.1)^{F}	2.5	2.4	2.3	2.4	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.3	(2.3)	(2.2)	2.0	2.1	(2.1)
27	(2.2)^{F}	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}	(2.1)^{F}	(2.0)^{F}	(2.2)^{F}	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.1	(2.2)	(2.3)	(2.1)	2.3	2.1	2.2	2.1
28	2.1	2.0	2.0	2.0	2.1	2.0	2.0	(2.4)	2.4	2.2	2.2	(2.2)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(2.3)	(2.5)	(2.4)	2.2	(2.0)	1.9	1.7
29																								
30																								
31																								
Sum																								
Median	2.0	2.0	2.0	2.0	2.1	2.0	(2.0)	2.2	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	(2.2)	(2.2)	2.2	2.0	2.0	2.0

TABLE 97

IONOSPHERE DATA-10

Washington, D. C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	3.0	3.0	3.0^{F}	3.1	3.0	3.2	3.3	3.2	(3.1)	3.3	3.1	3.3	3.3	3.1	3.1	3.3	(3.2)	(3.1)	(3.2)	(3.4)	3.0	(2.8)	2.9
2	2.9	3.0	2.9	3.0	3.2	3.1	(3.0)	2.9	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	(3.2)	(3.4)	3.3	3.0	3.0	3.0
3	3.0	2.9	2.8	3.0	2.9	2.9	3.0	3.1	3.3	3.3	3.2	3.1	3.3	(3.3)	C	3.2	3.1	(3.2)	(3.1)	3.1	3.1	3.1	3.2	3.0
4	3.0	3.0	3.1^{F}	3.0^{F}	3.1^{F}	3.1^{F}	(3.0)	3.2	3.3	(3.3)	3.1	3.2	3.1	3.1	3.1	(3.1)	3.3	3.1	3.2	3.2	(3.3)	3.0	2.9	2.9
5	2.9	3.0	3.1	2.9	2.9	2.8	2.9	3.1	(3.4)	(3.3)	(3.1)	3.2	3.1	3.2	3.1	3.1	3.1	3.1	(3.1)	(3.1)	3.1	3.1	(3.2)	3.0
6	3.1	2.9^{F}	(3.0)^{F}	(3.1)^{F}	2.9	2.9	3.0^{F}	(3.2)	3.3	3.3	3.3	3.0	B	B	(3.0)	(3.0)	(3.3)	3.3	(3.1)	(3.2)	(3.4)	(3.2)	(3.2)^{F}	(3.1)^{F}
7	(3.0)^{F}	(3.2)^{F}	(3.2)^{F}	(3.0)^{F}	(3.1)^{F}	(3.3)$^{F}_{K}$	(3.3)$^{F}_{K}$	2.7$^{F}_{K}$	2.9$^{F}_{K}$	2.5^{K}	2.6^{K}	G^{K}	2.1^{K}	2.4^{K}	(2.5)^{K}	(2.5)^{K}	2.8^{K}	(2.7)^{K}	(2.4)^{K}	A^{K}	A^{K}	A^{K}	(2.3)$^{F}_{K}$	(2.3)$^{F}_{K}$
8	(2.3)$^{F}_{K}$	(2.4)$^{F}_{K}$	(2.6)$^{F}_{K}$	(2.9)$^{F}_{K}$	(2.8)$^{F}_{K}$	B^{K}	B^{K}	(3.0)^{K}	3.0^{K}	(3.3)^{K}	G^{K}	G^{K}	(2.1)^{K}	2.6^{K}	B^{K}	2.9^{K}	(3.1)^{K}	3.0^{K}	3.0^{K}	(3.3)^{K}	(3.1)^{K}	3.0^{K}	3.1$^{F}_{K}$	3.0^{K}
9	3.0$^{F}_{K}$	(3.0)$^{F}_{K}$	(3.0)$^{F}_{K}$	(3.0)$^{F}_{K}$	(3.0)$^{F}_{K}$	(3.1)$^{F}_{K}$	(2.4)^{F}	3.3^{F}	3.5	(3.2)	3.2	(2.8)	(3.4)	(3.2)	(3.2)	(3.1)	(3.1)	3.2	(3.2)	(3.2)	3.2	3.2	3.2	3.1
10	3.0	2.9^{F}	2.9	2.9	2.9	3.1^{F}	3.0	(3.2)	(3.5)	3.5	3.1	(3.4)	(3.3)	(3.3)	(3.4)	(3.3)	(3.5)	(3.3)	(3.3)	(3.2)	3.0	3.0	3.2	3.0
11	3.1^{F}	2.9	2.9^{F}	2.9^{F}	3.0^{F}	(3.0)^{F}	3.0^{F}	(3.3)	(3.4)	(3.4)	3.1	3.3	3.0	(3.1)	3.1	(3.2)	3.2	(3.2)	(3.3)	(3.3)	(3.2)	3.0	2.9	3.0
12	(2.8)	(2.8)	3.1	2.9	(3.3)	(3.2)	(3.0)^{F}	3.0	(3.5)	(3.5)	3.2	3.2	(3.3)	3.0	3.2	3.1	3.1	3.1	(3.2)	3.0	3.0	3.0	(3.1)	(3.1)
13	3.0	3.1	2.9^{F}	(2.8)	(2.8)^{F}	(2.8)^{F}	3.1^{F}	3.2	(3.3)	C	C	C	3.1	3.1	3.2	3.1	3.2	3.3	3.2	3.2	3.3	3.2	3.2	3.1^{F}
14	3.1^{F}	3.0	3.2^{F}	(3.0)^{F}	(3.3)^{F}	(3.1)^{F}	(3.1)^{F}	3.1	3.4	3.3	3.3	2.9	3.2	3.1	3.1	3.0	(3.2)	(3.3)	(3.1)	(3.4)	3.2	3.0	(3.0)	(2.8)^{F}
15	2.8	(2.8)^{F}	2.9^{F}	2.9^{F}	2.9^{F}	2.7^{F}	(2.8)^{F}	3.0^{F}	3.3	3.1^{F}	3.1	3.1	3.2	3.3	3.2	3.2	3.2	3.3	3.1	3.1	3.2	3.1	3.1	3.1
16	3.0	3.1^{F}	3.1^{F}	3.0^{F}	3.1^{F}	3.0^{F}	3.2^{F}	3.3	3.4	3.2	3.5	3.2	3.2	3.2	3.2	3.1	3.1	3.1	(3.2)	3.1	3.0	3.0	(3.1)	(3.2)
17	3.2	3.2^{F}	3.1	3.1	3.3	C	3.0	(3.4)	3.5	3.4	3.2	3.3	3.2	3.2	3.2	3.2	3.2	3.3	(3.1)	3.1	3.2	3.1	3.0	3.1
18	3.1	3.1	3.2	3.1	3.0	3.0	3.1	3.4	3.4	3.3	3.2	3.2	3.1	3.2	3.1	(3.1)	3.2	(3.3)	(3.2)	3.2	3.2	3.0	3.0	3.0
19	3.0	2.9	3.0	3.0	2.9	3.0	3.3	3.2	3.4	3.4	3.3	3.2	3.0	3.1	3.0	3.1	3.1	3.1	(3.3)	(3.1)	(3.2)	3.2	3.0	2.9
20	(3.0)	3.0	3.0	(3.1)^{F}	(3.1)^{F}	(3.0)^{F}	(3.0)^{F}	3.2^{F}	3.4	(3.3)^{F}	3.2	3.1	3.2	3.2	3.1	3.1	3.1	2.9	(3.1)^{K}	3.1^{K}	2.8^{K}	2.8^{K}	(2.8)$^{F}_{K}$	(2.8)$^{F}_{K}$
21	(3.1)$^{F}_{K}$	(2.7)$^{F}_{K}$	(2.8)$^{F}_{K}$	(2.9)$^{F}_{K}$	(2.8)$^{F}_{K}$	(3.3)$^{F}_{K}$	(2.8)$^{F}_{K}$	(2.8)^{K}	3.3^{K}	3.1$^{F}_{K}$	2.9^{K}	2.9^{K}	2.8^{K}	2.8^{K}	2.9^{K}	2.8^{K}	2.9^{K}	3.1^{K}	3.0^{K}	2.9^{K}	2.9^{K}	2.9^{K}	2.9^{K}	2.7^{K}
22	2.8^{K}	2.8^{K}	3.0^{K}	3.2^{K}	2.9$^{F}_{K}$	(2.8)$^{F}_{K}$	(2.6)^{F}	(3.1)	(3.4)^{F}	3.2	3.3	3.1	3.3	3.1	3.1	3.2	3.2	3.2	3.2	(3.2)	(3.2)	3.1^{F}	2.9^{F}	(2.9)^{F}
23	(2.9)^{F}	(2.9)^{F}	(2.9)^{F}	(3.0)^{F}	3.1^{F}	(2.9)^{F}	(3.0)^{F}	(3.3)^{F}	3.3	3.3	3.2	(3.3)	(3.1)	(3.3)	(3.3)	(3.4)	C	(3.6)	(3.4)	3.3	3.1	3.3^{F}	(3.0)	(3.0)
24	(3.1)^{F}	(3.1)^{F}	(3.0)^{F}	(2.9)^{F}	(3.2)^{F}	(3.3)^{F}	(3.3)^{F}	(3.3)^{F}	3.3	3.3	3.2	(3.2)	(3.4)	(3.3)	3.1	3.0	3.1	3.2	3.3	3.2	3.2	3.2	3.0	2.7
25	2.8^{F}	(2.9)^{F}	(2.8)^{F}	3.1^{F}	3.4^{F}	3.2^{F}	(3.4)^{F}	3.3	3.4	3.3	3.2	3.2	3.2	(3.4)	3.1	3.2	3.2	3.1	3.2	(3.2)	3.2	3.1	3.0	(2.9)^{F}
26	(2.8)^{F}	(2.9)^{F}	(3.1)^{F}	(3.0)^{F}	(3.1)^{F}	(3.1)^{F}	(3.1)^{F}	3.5	3.5	3.3	3.4	3.2	3.1	3.2	3.1	3.1	3.2	3.2	3.3	(3.3)	(3.2)	3.0	3.1	(3.1)
27	(3.2)^{F}	(3.0)^{F}	(3.0)^{F}	(3.0)^{F}	(3.1)^{F}	(3.0)^{F}	(3.2)^{F}	3.3	3.4	3.3	3.3	3.2	3.1	3.1	3.1	3.2	3.1	(3.2)	(3.3)	(3.1)	3.3	3.1	3.2	3.1
28	3.1	3.0	3.0	3.0	3.1	3.0	3.0	(3.5)	3.4	3.2	3.2	(3.2)	(3.3)	(3.4)	(3.3)	(3.3)	(3.3)	(3.2)	(3.5)	(3.5)	(3.2)	(3.0)	2.9	2.7
29																								
30																								
31																								
Sum																								
Median	3.0	3.0	3.0	3.0	3.1	3.0	(3.0)	3.2	3.4	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.2	3.2	(3.2)	(3.2)	3.2	3.0	3.0	3.0

TABLE 98

IONOSPHERE DATA-II

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F1-M3000 for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1											L	4.0	L	L	L	L								
2											L	3.7	L	L	L	L								
3											L	L	L	C	L	L	B							
4											L	L	L	(3.7)	L	L								
5										L	L	L	L	(3.7)	3.8	L	L							
6											L	L	B	B	B	B								
7									K	3.2 K	3.3 K	3.7 K	3.3 K	B K	3.1 K	3.3 K	L K	L K						
8									K	K	3.4 K	(3.5) K	3.6 K	3.4 K	B K	3.3 K	L K	K						
9											L	3.8	B	L	L	L								
10										L	L	L	(3.7)	L	L	L								
11											L	L	L	B	L									
12											L	L	B	L	L	L								
13											L	C	L											
14											L	L	L	L	L	L	L							
15										L	(3.5)	3.6	3.6	3.7	(3.7)	L	L							
16										L	L	L	3.7	L	L	L								
17										L	L	L	L	L	L	L								
18										L	3.9	L	L	L	L	L								
19									L	L	L	L	3.7	3.8	L	L	L							
20									L	(4.0)	L	(3.6)	(3.4)	L	(3.6)	(3.7)	L	L						
21									L K	L K	(3.4) K	3.3 K	3.6 K	3.4 K	3.5 K	3.5 K	(3.5) K	L K						
22									L	L	L	(3.6)	(3.7) H	L	3.6	(3.7)	L	L						
23										L	L	3.7	3.7	L	L	L	L							
24										L	L	L	L	L	L	L	L							
25										L	L	3.7	3.8	L	L	L	L							
26										L	L	L	(3.8)	(3.6)	L	L	L							
27											L	L	L	L	L	L	L							
28										L	L	L	L	L	L	L	L							
29																								
30																								
31																								
Sum																								
Median										L	3.4	3.7	3.7	3.7	3.6	3.5	L							

TABLE 99

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

IONOSPHERE DATA-12

Hourly values of E-MI500 for February (Month) 1946

Records measured by: J.M.C. J.J.H.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									(4.2)H	A	(4.3)H	4.3	(4.2)H	(4.2)H	A	4.0	(4.1)	(4.1)H						
2									(4.1)	4.0	4.1	4.0	4.1	4.3	4.2	4.3	B	B						
3									(4.3)	4.1	(4.2)	(4.3)	(4.3)	C	(4.2)	(4.2)	B	C						
4									(4.0)	(3.9)	(3.9)	(4.1)	4.0	(4.0)	C	(4.1)	4.1	B						
5									(4.3)	(4.2)	B	(4.0)	(4.1)	(4.3)	B	A	(4.4)H	(4.0)H						
6									A	(4.0)	A	A	B	B	B	B	(4.3)	4.0						
7								K	(4.1)K	AK	4.2K	4.3K	(4.1)K	BK	4.3K	(4.1)K	(4.5)K	(4.0)K	K					
8								K	(4.1)K	AK	(4.3)K	BK	BK	4.2K	BK	(4.0)K	(3.8)K	3.8K	K					
9									(4.1)	(4.1)	C	C	B	(4.1)	(4.2)	(4.0)	4.0	4.0						
10									C	4.0	(4.1)	C	C	(4.1)	(4.3)	(4.1)	C	C						
11									(4.1)H	C	C	C	A	B	A	(4.2)	(4.2)	C						
12									(3.7)	(4.0)	C	C	B	(4.2)	A	C	A	(4.0)						
13								3.1	3.8	C	(4.3)	C	A	C	(4.0)	C	(4.2)	A						
14									4.1	4.3	(4.2)	(4.2)	4.1	(4.2)	4.4	4.2	4.0	(4.4)H						
15									(4.0)H	(4.1)H	(4.1)H	4.1H	4.1	(4.2)	(4.2)	(4.2)	4.0	4.1						
16									A	(4.1)	(4.2)	(4.0)	(4.1)	4.2	4.3	(4.3)	4.2	3.9						
17									(4.4)	4.2	(4.1)	4.2	4.2	4.2	4.2	(4.2)	(4.3)	4.1						
18									(4.3)	(4.2)H	(4.1)	(4.1)	4.2	4.2	(4.2)	(4.1)	4.3	4.3						
19									4.0	4.0	4.1	(4.2)	4.1	4.1	4.3	(4.3)	(4.4)H	4.4H						
20									(4.1)	(4.2)	(4.4)	(4.6)	4.2	4.1	4.2	4.1	4.1	4.1	K					
21								(4.1)HK	AK	4.4K	4.1K	CK	CK	(4.2)K	(4.5)K	CK	4.1K	(4.1)HK	K					
22								A	(4.1)	4.1	(4.2)	(4.2)	4.2)	(4.1)	(4.1)	(4.1)	4.2	(4.2)						
23								(4.1)	(4.3)	(4.6)	(4.6)	C	C	C	(4.6)	(4.4)	(3.9)	(4.0)						
24								(4.2)	3.9	(4.3)	(4.2)H	C	C	C	(4.1)	(4.1)	4.2	A						
25								C	4.1	4.3	(4.5)	C	C	(4.3)	(4.4)	(4.3)	(4.4)	A						
26								C	(4.3)	(4.0)	4.2	(4.3)H	4.2	4.1	4.2	4.3	4.4	(4.3)	(4.2)H					
27								(3.9)H	4.0	4.1	4.1	4.2	4.2	4.4	4.3	(4.2)	4.3	(4.3)						
28								(4.0)H	(4.4)	4.3	4.2	(4.3)	(4.5)	(4.3)	A	(4.4)	(4.2)	A						
29																								
30																								
31																								
Sum																								
Median								(4.0)	(4.1)	4.1	(4.2)	(4.2)	4.2	(4.2)	(4.2)	(4.2)	4.2	(4.1)						

Table 100

Ionospheric Storminess, February 1946

Day	Ionospheric Character* 00-12 GCT	12-24 GCT	Principal Storms Beginning GCT	End GCT	Geomagnetic Character** 00-12 GCT	12-24 GCT
February						
1	2	2			1	1
2	2	1			3	1
3	2	1			1	3
4	1	3			2	2
5	3	1			2	3
6	1	2			1	3
7	1	7	0930	——/	4	7
8	6	6	——	——	7	4
9	4	1	——	1100	2	2
10	2	1			2	2
11	1	2			2	1
12	1	3			1	2
13	1	3			2	2
14	2	3			3	3
15	2	2			3	2
16	1	2			1	2
17	0	1			2	0
18	1	1			1	2
19	1	0			3	3
20	1	3	2300	——	2	3
21	4	6	——	——	5	3
22	4	3	——	1100	4	2
23	3	2			4	2
24	3	2			2	2
25	2	2			3	2
26	2	2			2	1
27	1	2			0	1
28	1	2			1	1

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D.C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

/Dashes indicate continuing storm.

Table 101

Sudden Ionosphere Disturbances Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Locations of transmitters	Relative intensity at minimum*	Other phenomena
February					
1	1340	1400	Ohio, D.C., England, Mexico, Surinam, Chile, Gold Coast	0.2	Terr.mag.pulse** 1338-1345
1	2007	2110	Ohio, D.C., Mexico, Surinam, Hawaii, Chile, Gold Coast	0.0	Terr.mag.pulse** 2005-2015
2	2059	2120	Ohio, D.C., Mexico, Surinam, Hawaii, Chile	0.01	Terr.mag.pulse** 2055-2100
3	1555	1615	Ohio, D.C., England, New Brunswick, Mexico, Surinam, Chile, Gold Coast	0.1	Terr.mag.pulse** 1548-1558
3	2040	2125	Ohio, D.C., Mexico, Surinam, Hawaii, Chile, Gold Coast	0.0	Terr.mag.pulse** 2045-2055
6	1552	1950***	Ohio, D.C., England, New Brunswick, Mexico, Surinam, Chile, Gold Coast	0.0	
6	1956	2120	Ohio, D.C., England, New Brunswick, Mexico, Surinam, Chile, Gold Coast	0.0	Terr.mag.pulse** 1945-2015
6	2132	2206	Ohio, D.C., Mexico, Surinam, Chile, Gold Coast	0.05	
7	1721	1835	Ohio, D.C., Mexico Surinam, Hawaii, Chile, Gold Coast	0.0	
8	1856	1930	Ohio, D.C., Mexico, Surinam, Hawaii, Chile	0.1	
9	2058	2120	Ohio, D.C., Mexico, Surinam, Chile	0.2	Terr.mag.pulse** 2045-2055

Table 101 (continued)

Day	GCT Beginning	GCT End	Locations of transmitters	Relative intensity at minimum*	Other phenomena
February					
10	1431	1440	Ohio, D.C., England, Mexico, Surinam	0.2	
11	1730	1900	Ohio, D.C., England, New Brunswick, Mexico, Surinam, Chile, Gold Coast	0.0	
12	1220	1315	England	0.0	
13	1136	1205	England	0.0	
13	1520	1620	Ohio, D.C., New Brunswick, Mexico, Surinam, Chile	0.3	
15	2249	2325	Mexico, Hawaii, Chile	0.2	
24	1840	1902	Ohio, D.C., England Mexico	0.0	Terr.mag.pulse** 1840-1858
27	1720	1810	Ohio, D.C., England, Mexico, Surinam	0.0	
28	1802	1935	Ohio, D.C., England, Mexico, Surinam	0.0	Terr.mag.pulse** 1808-1828

*Ratio of received field intensity during SID to average field intensity before and after, for station W8XAL, 6080 kilocycles, 800 kilometers distant, for all SID except those on 12 February, the first on 13 February, and on 15 February. Station GLH, 13525 kilocycles, 5340 kilometers distant, was used for the SID on 12 and 13 February. Station XEWW, 9500 kilocycles, 3010 kilometers distant, was used for 15 February.

**As observed on Cheltenham magnetogram of the United States Coast and Geodetic Survey.

***Incomplete recovery of SID.

Table 102

Sudden Ionosphere Disturbances Reported by Engineer-in-Chief, Cable and Wireless, Ltd.

Day	GCT Beginning	GCT End	Receiving Station	Locations of transmitters
February				
1	1345	1400	Brentwood, England	Belgian Congo, Kenya, Mozambique, South Rhodesia, Zanzibar
1	1340	1400	Somerton, England	Argentina, British West Indies, New York, South Africa
2	0915	1230	Brentwood, England	Austria, Belgian Congo, Brazil, Bulgaria, Canary Islands, Greece, India, Iran, Kenya, Madagascar, Palestine, Portugal, Russia, South Rhodesia, Spain, Thailand, Turkey, Yugoslavia, Zanzibar
2	0915	1200	Somerton, England	Argentina, Canada, China, Egypt, Gold Coast, India, Japan, New York, South Africa
3	0805	1030	Brentwood, England	Belgian Congo, Bulgaria, Greece, India, Kenya, Russia, South Rhodesia, Syria, Yugoslavia
5	0845	0815	Brentwood, England	India, Iran, Kenya, Madagascar, South Rhodesia,
5	1145	1230	Brentwood, England	Austria, Belgian Congo, Bulgaria, Canary Islands, Greece, Kenya, Madagascar, Palestine, Russia, South Rhodesia, Switzerland, Zanzibar
6	0647	0730	Brentwood, England	Iran, Kenya, Madagascar, South Rhodesia

Table 103

Provisional Radio Propagation Quality Figures
January 1946
Compared with IRPL and ISIB Warnings and IRPL A-Zone Forecasts

Day	North Atlantic Quality Figure		North Atlantic IRPL Warning		North Atlantic ISIB Warning		North Atlantic A-Zone Forecast	North Atlantic Geomagnetic K_A		North Pacific Quality Figure		North Pacific IRPL Warning		North Pacific A-Zone Forecast	North Pacific Geomagnetic K_A	
	01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT		01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT		01-12 GCT	13-24 GCT
1	(4)	(4)					(4)	2	2	6	6			(4)	2	2
2	(4)	(4)	*				5	2	2	6	6	*		5	2	2
3	(4)	(3)		X		X	5	3	6	6	(4)		X	5	3	6
4	(2)	(3)	X	X	X	X	5	5	3	5	5	X	X	5	5	3
5	(3)	(4)	X	X	X		5	2	2	5	5	X	X	5	2	2
6	(3)	(4)	X	X			6	2	2	6	6	X	X	6	2	2
7	(3)	(4)	X	X			5	1	2	6	6	X	X	5	1	2
8	(4)	5	X	X			5	2	1	6	5	X	X	5	2	1
9	(4)	6	X	X			5	1	1	6	6	X	X	5	1	1
10	5	6	*	*			(4)	1	2	5	(4)	*	*	(4)	1	2
11	(4)	(4)					5	4	2	6	6			5	4	2
12	(4)	(4)					5	2	2	6	6			5	2	2
13	5	5			X	X	5	0	1	6	6			5	0	1
14	(4)	5					6	1	1	6	5			6	1	1
15	5	6	X				6	1	1	6	6	X		6	1	1
16	5	6					5	2	1	6	5			5	2	1
17	5	6					(4)	3	2	5	(4)			(4)	3	2
18	5	5		X			(4)	1	2	(4)	5		X	(4)	1	2
19	(4)	6	X		X	X	(4)	2	1	5	(4)	X		(4)	2	1
20	5	6					5	1	0	5	5			5	1	0
21	5	6					5	0	1	6	5			5	0	1
22	5	6					5	3	1	6	5			5	3	1
23	5	5					(4)	3	2	6	5			(4)	3	2
24	(4)	(4)		X	X	X	(4)	3	3	6	5		X	(4)	3	3
25	(4)	(4)	X				5	2	2	6	6	X		5	2	2
26	(4)	(4)					5	3	2	6	6			5	3	2
27	(4)	6	X				(4)	2	1	6	5	X		(4)	2	1
28	5	6					(4)	1	1	6	(4)			(4)	1	1
29	5	5					5	2	2	5	5			5	2	2
30	5	(4)					5	2	1	5	(4)			5	2	1
31	5	5					5	1	2	6	5			5	1	2

Score:																
H			11			5		4					1		5	
M			6			13		14					6		2	
G			11			12		8					13		20	
(S)			2			1		5					4		3	
S			0			0		0					6		1	

Quality Figure and Forecast Scale:
1 = Useless
2 = Very poor
3 = Poor
4 = Poor to fair
5 = Fair
6 = Fair to good
7 = Good
8 = Very good
9 = Excellent

Symbols
X = Warning given
H = Quality 4 or worse on day or half-day of warning.
M = Quality 4 or worse on day or half-day of no warning.
G = Quality 5 or better on day of no warning.
(S) = Quality 5 on day of warning.
S = Quality 6 or better on day of warning.
( ) = Quality or forecast 4 or worse (disturbed)

Geomagnetic K_A on the standard scale of 0 to 9, 9 representing the greatest disturbance.

*No report issued on 1 January 1946 for 2 January 1946.
**From 9 January 1946 IRPL warnings broadcast on WWV, Washington, D.C. Times of warnings recorded to nearest half-day as broadcast.

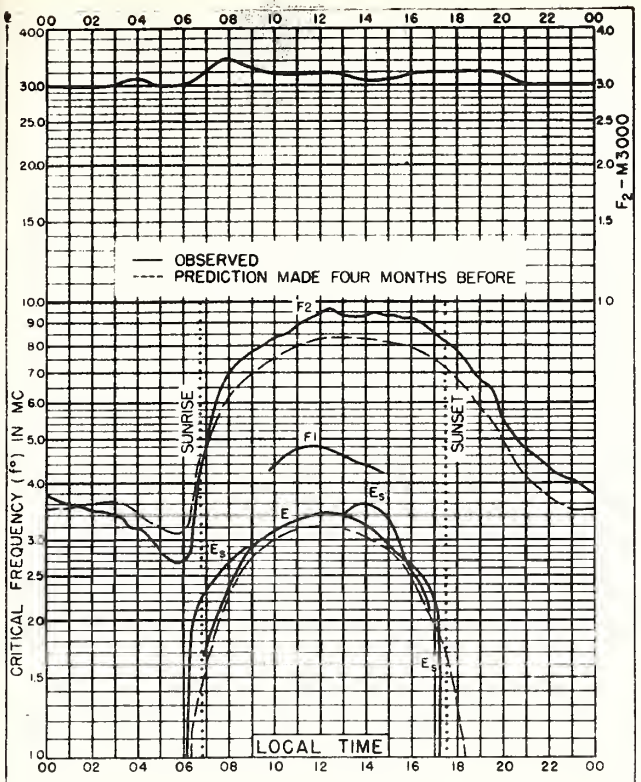


Fig. 1. WASHINGTON, D.C.
39.0°N, 77.5°W FEBRUARY, 1946

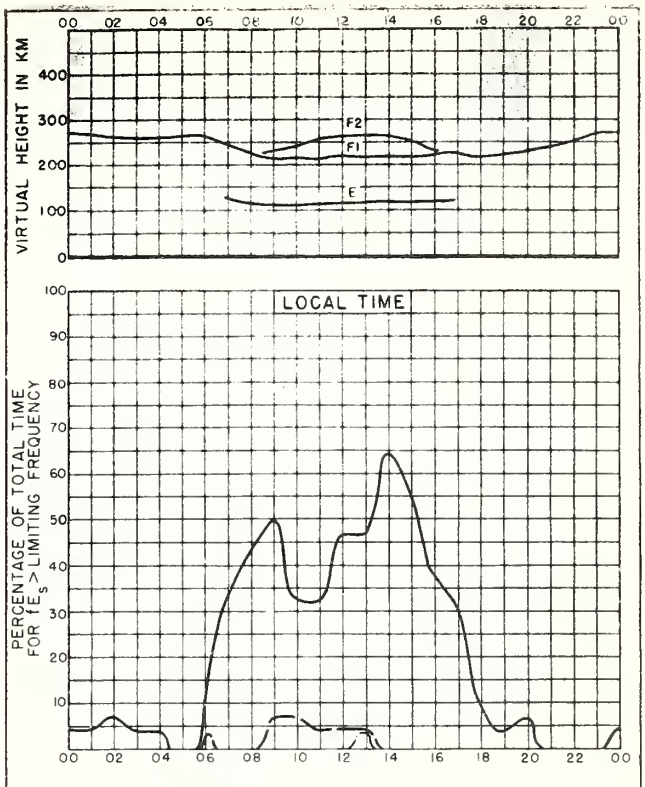


Fig. 2. WASHINGTON, D.C. FEBRUARY, 1946

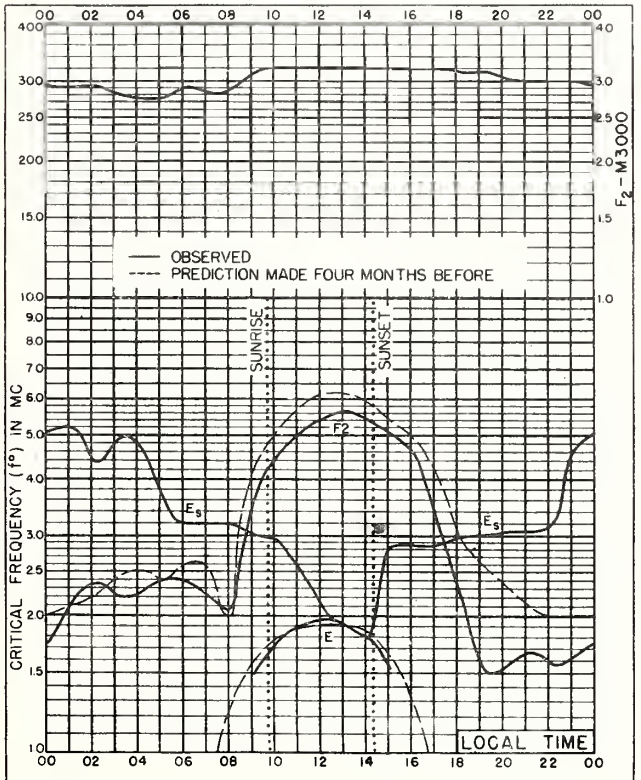


Fig. 3. FAIRBANKS, ALASKA
64.9°N, 147.8°W JANUARY, 1946

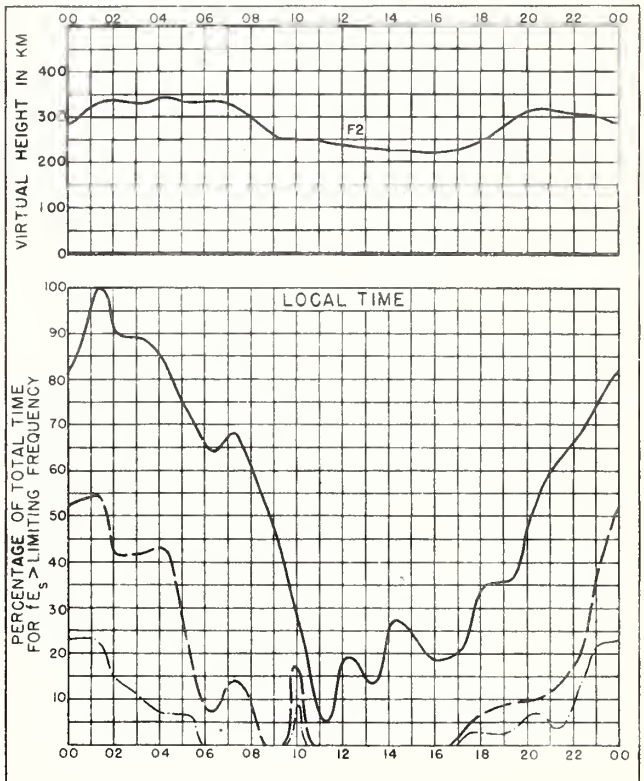


Fig. 4. FAIRBANKS, ALASKA JANUARY, 1946

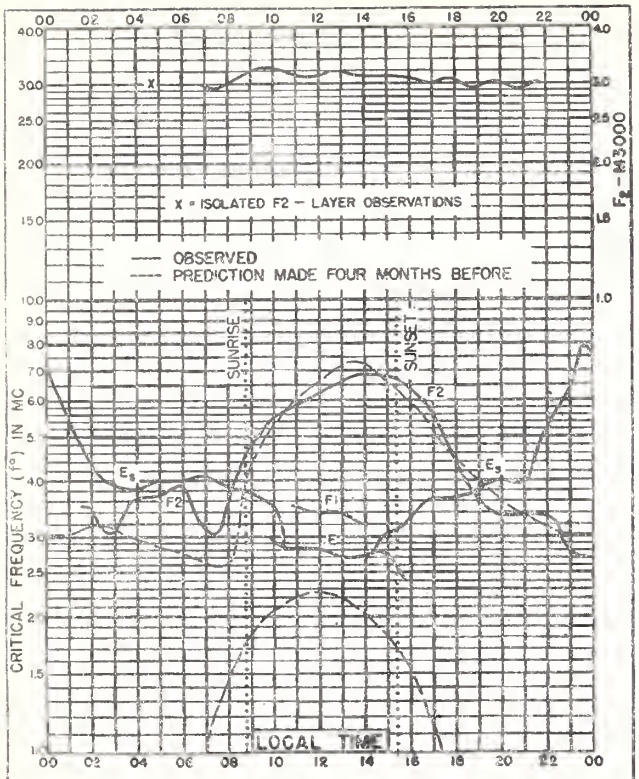


Fig. 5. CHURCHILL, CANADA
58.8°N, 94.2°W JANUARY, 1946

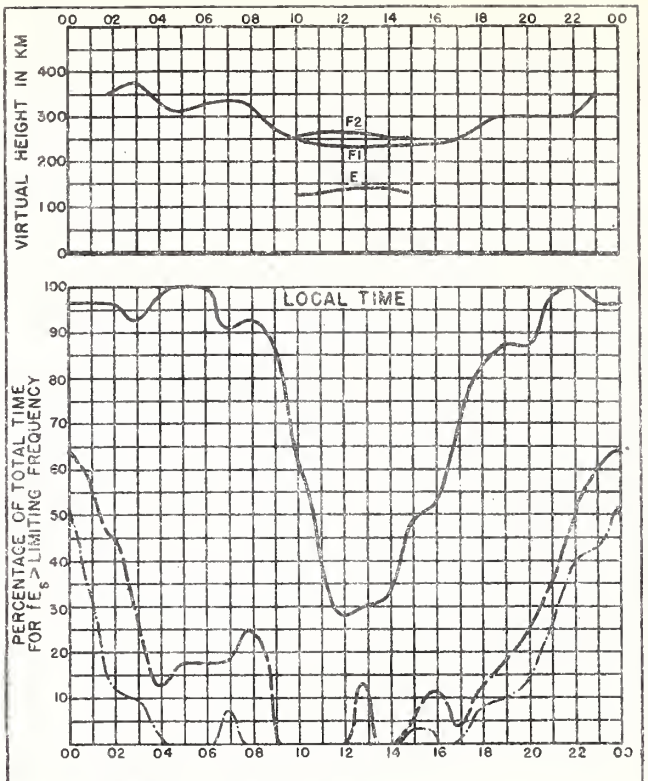


Fig. 6. CHURCHILL, CANADA JANUARY, 1946

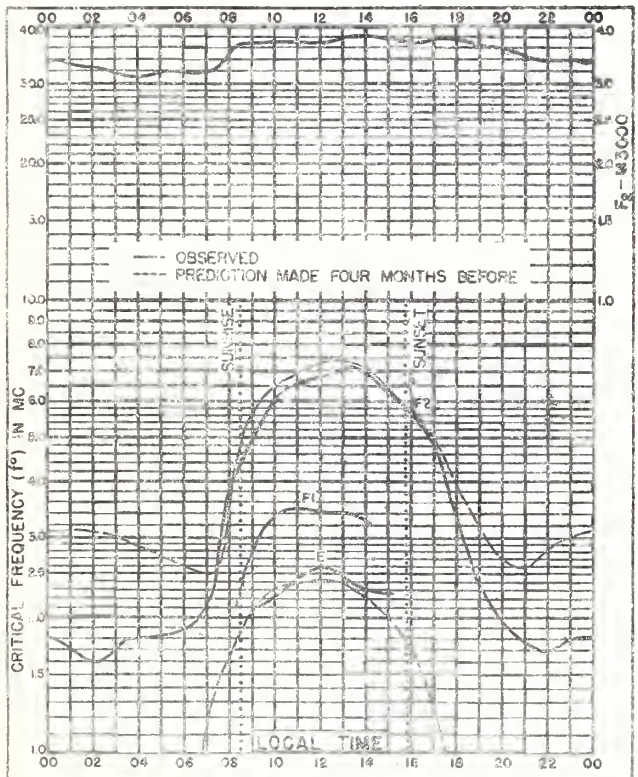


Fig. 7. PRINCE RUPERT, CANADA
54.3°N, 130.3°W JANUARY, 1946

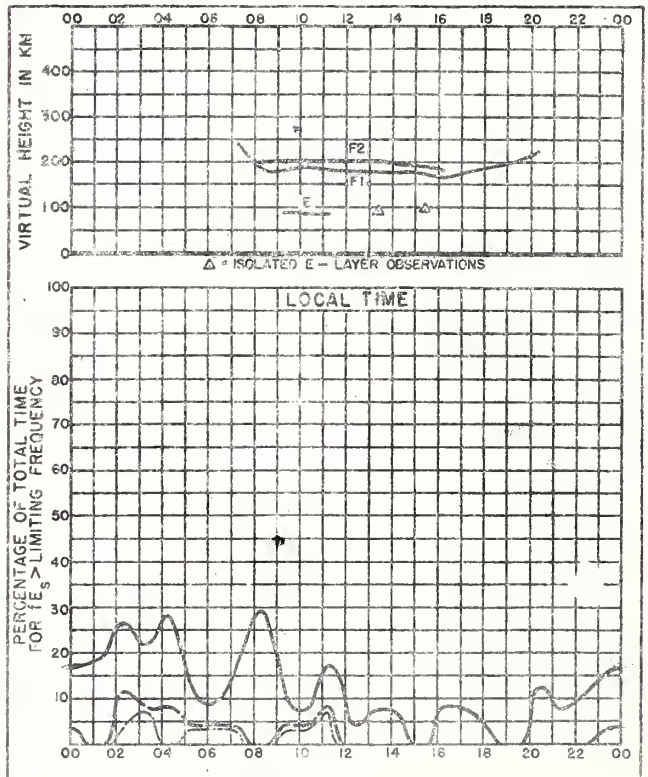


Fig. 8. PRINCE RUPERT, CANADA JANUARY, 1946

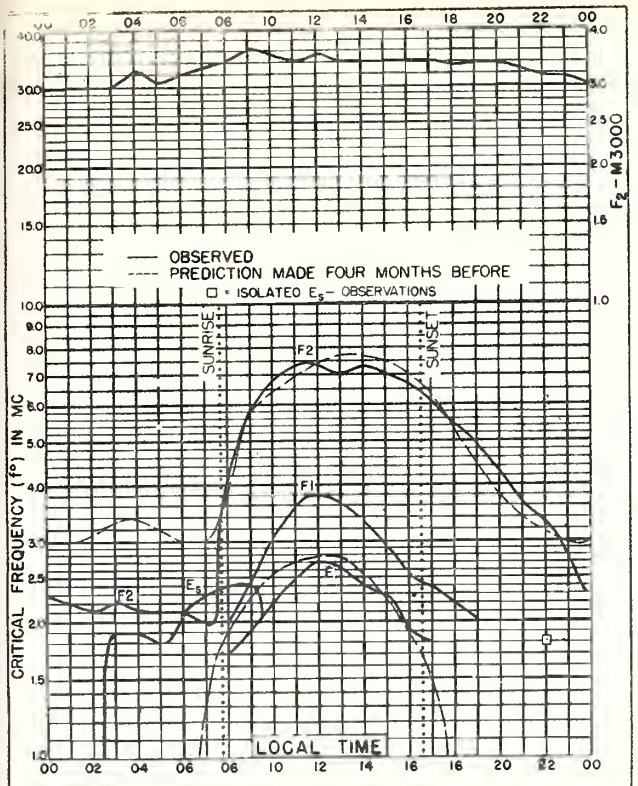


Fig. 9. ST. JOHN'S, NEWFOUNDLAND
47.7°N, 52.7°W JANUARY, 1946

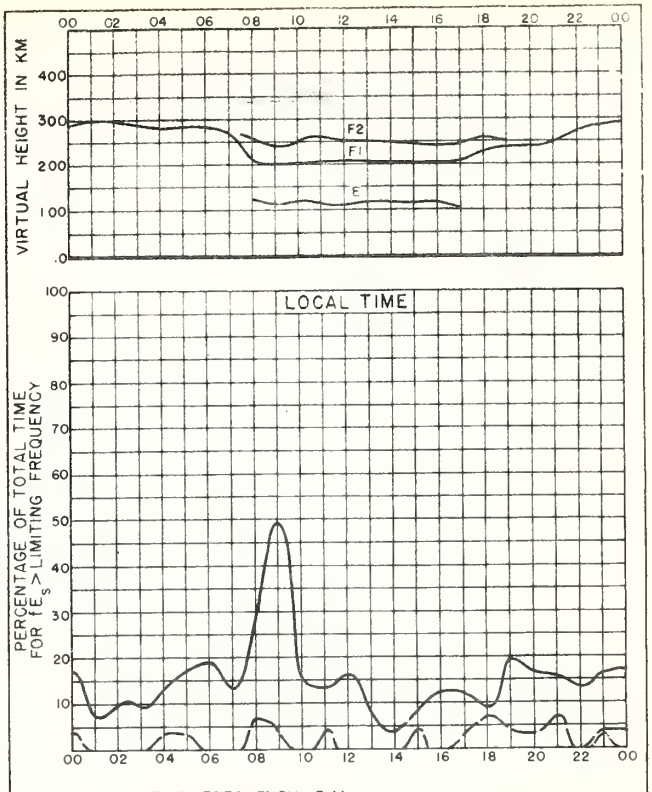


Fig. 10. ST. JOHN'S, NEWFOUNDLAND JANUARY, 1946

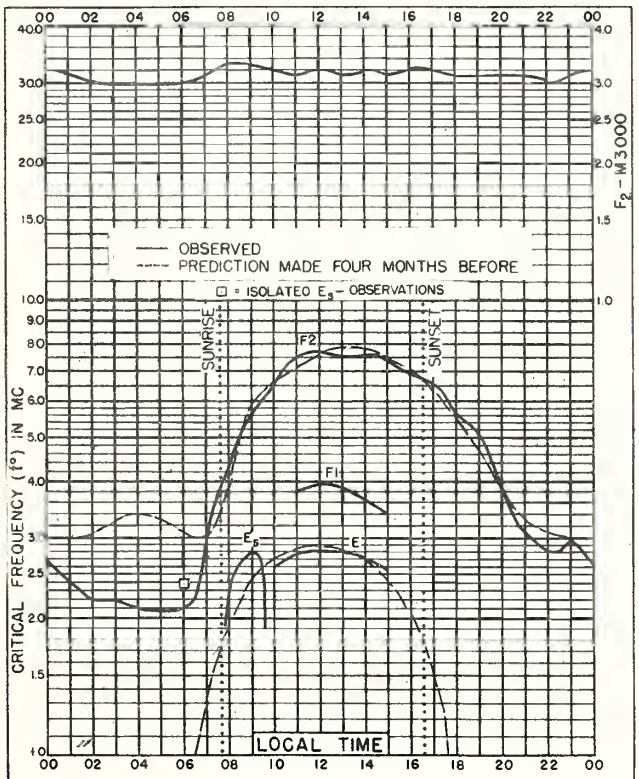


Fig. 11. OTTAWA, CANADA
45.5°N, 75.8°W JANUARY, 1946

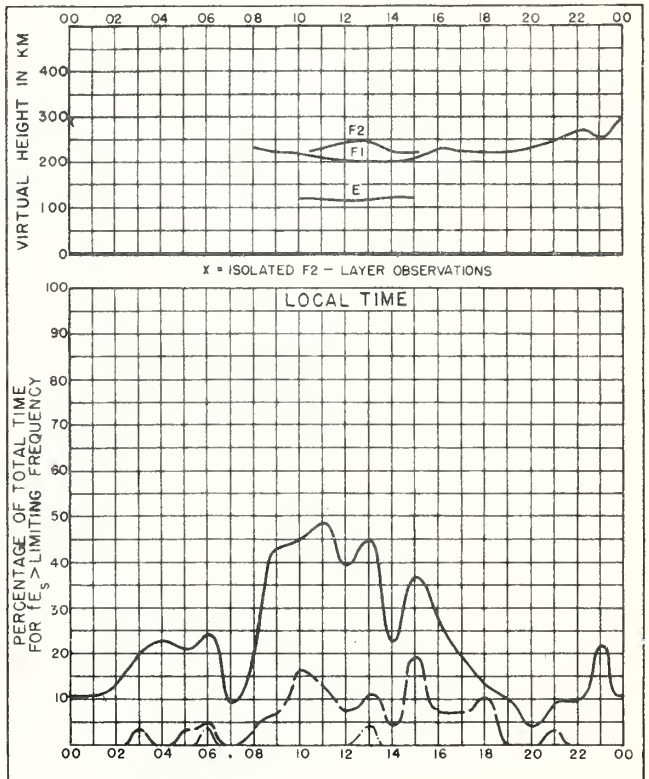


Fig. 12. OTTAWA, CANADA JANUARY, 1946

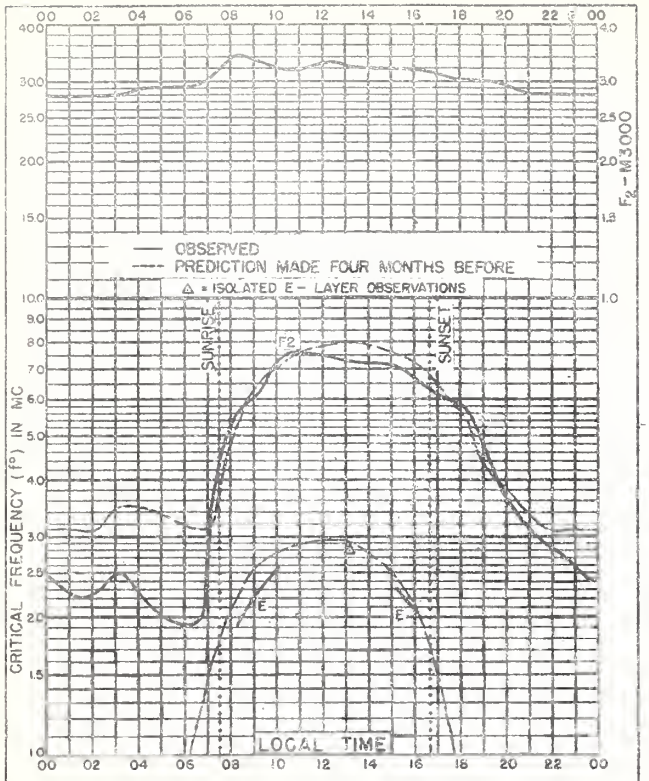


Fig. 13. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W JANUARY, 1946

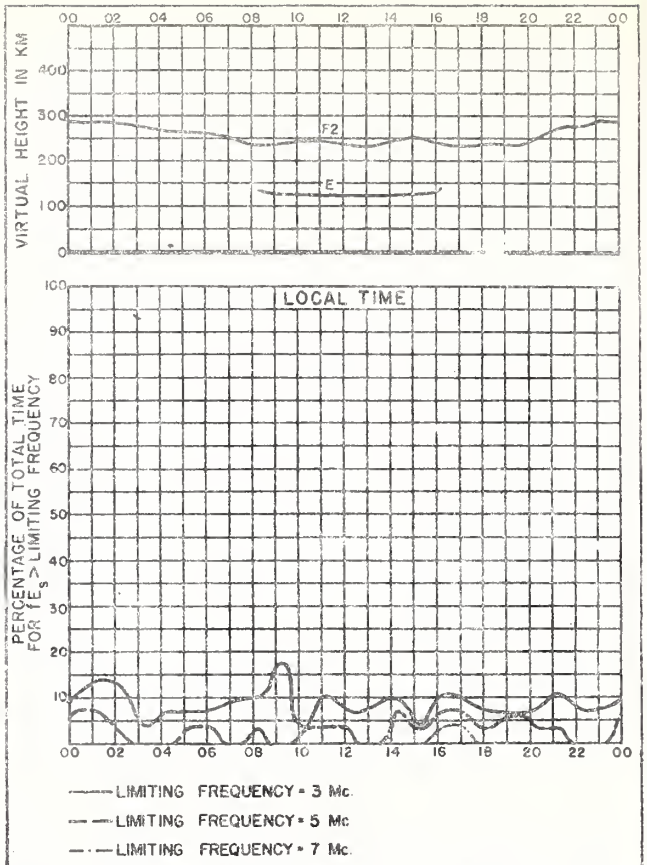


Fig. 14. BOSTON, MASSACHUSETTS JANUARY, 1946

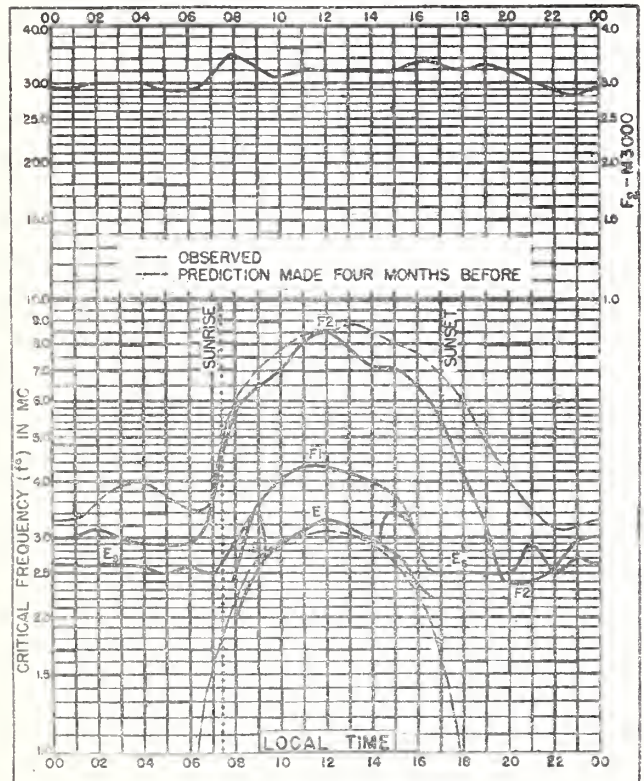


Fig. 15. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W JANUARY, 1946

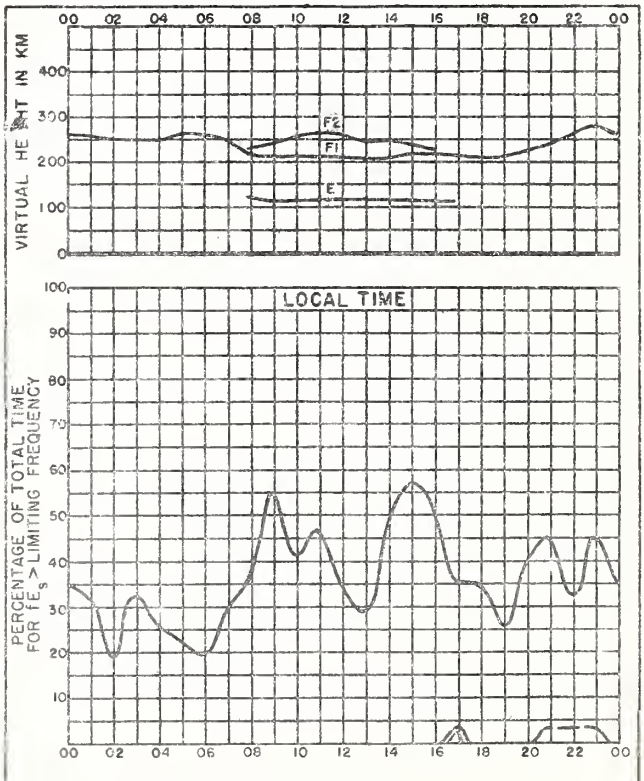


Fig. 16. SAN FRANCISCO, CALIFORNIA JANUARY, 1946

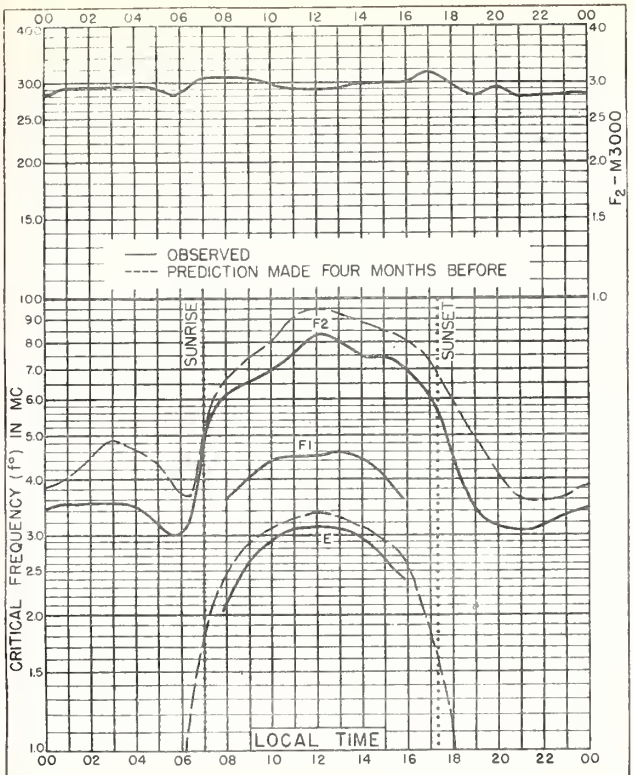


Fig. 17. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W JANUARY, 1946

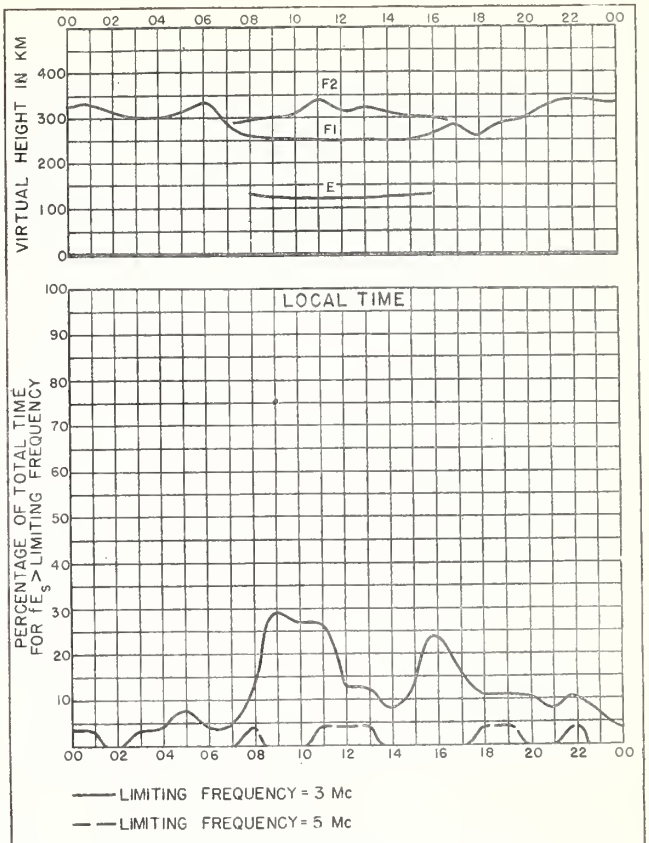


Fig. 18. BATON ROUGE, LOUISIANA JANUARY, 1946

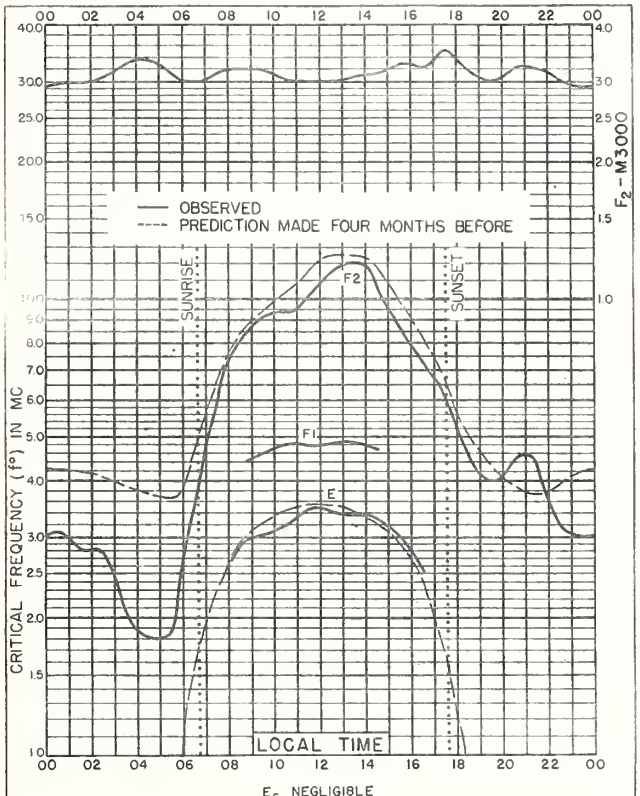


Fig. 19. MAUI, HAWAII
20.8°N, 156.5°W JANUARY, 1946

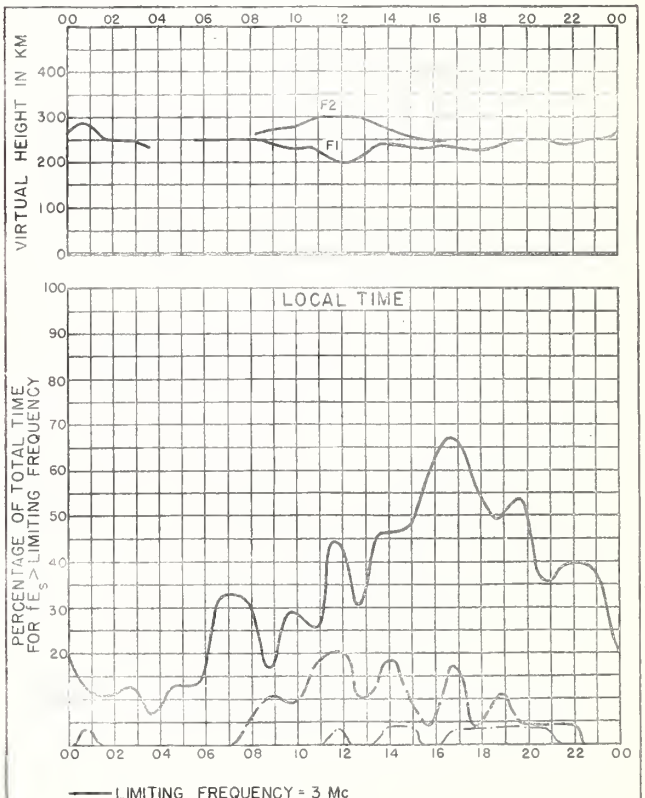


Fig. 20. MAUI, HAWAII JANUARY, 1946

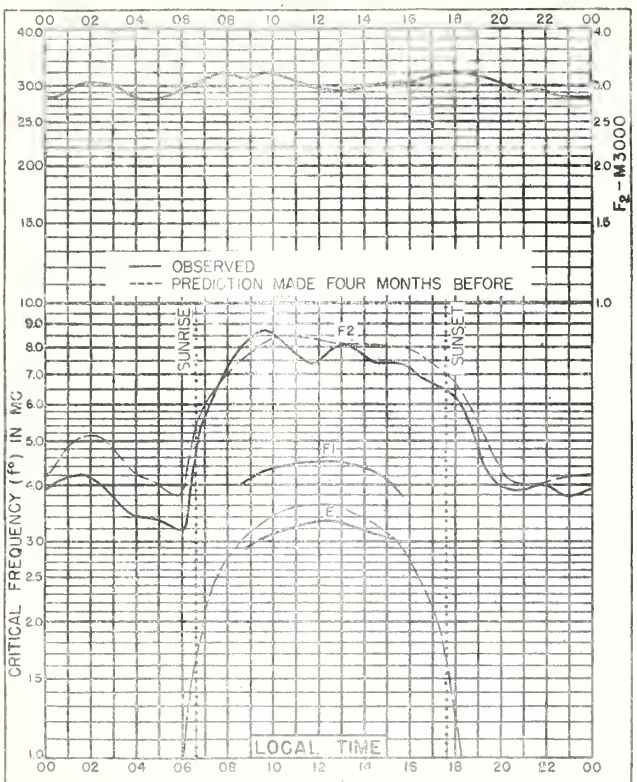


Fig. 21. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W JANUARY, 1946

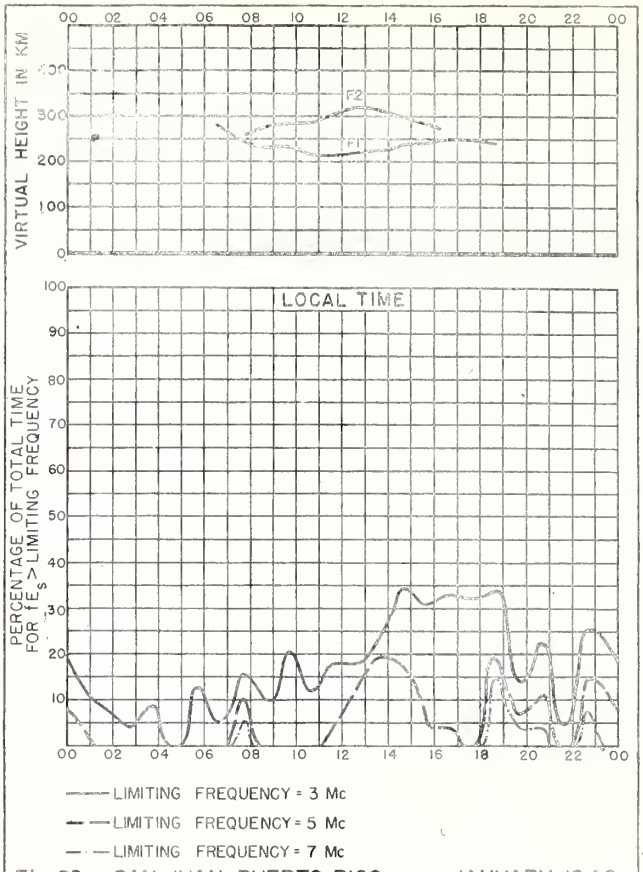


Fig. 22. SAN JUAN, PUERTO RICO JANUARY, 1946

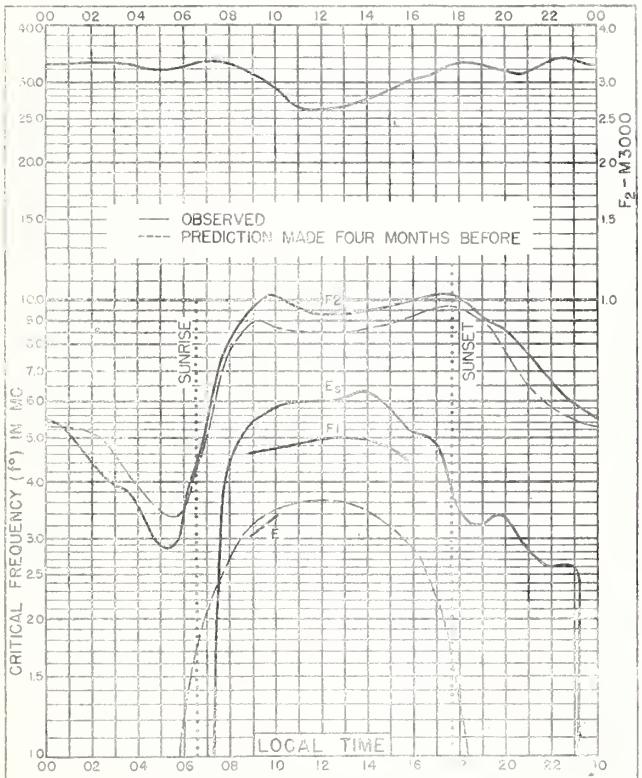


Fig. 23. GUAM I.
13.5°N. 144.8°E JANUARY, 1946

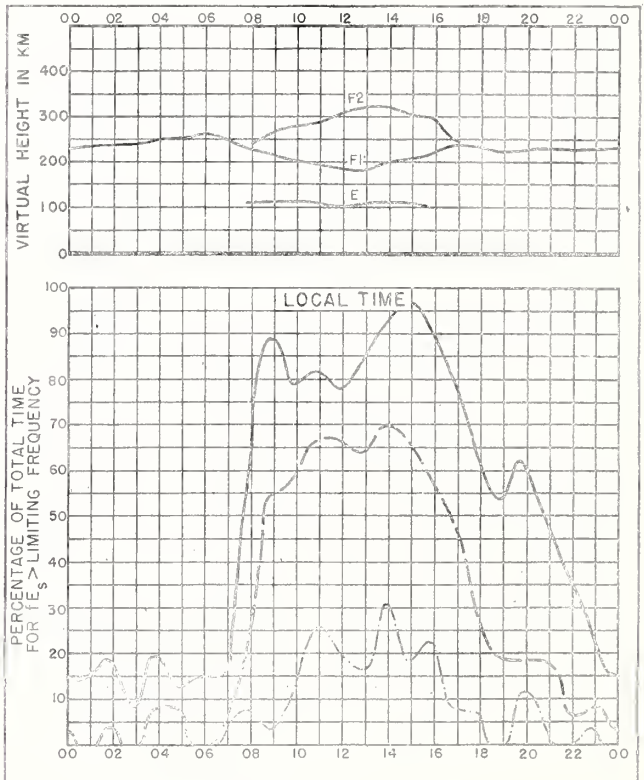


Fig. 24. GUAM I. JANUARY, 1946

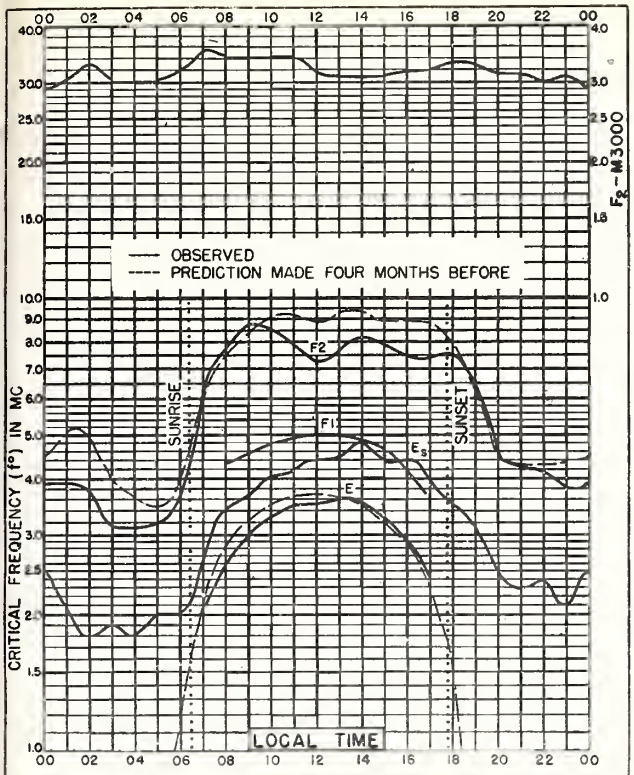


Fig. 25. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W JANUARY, 1946

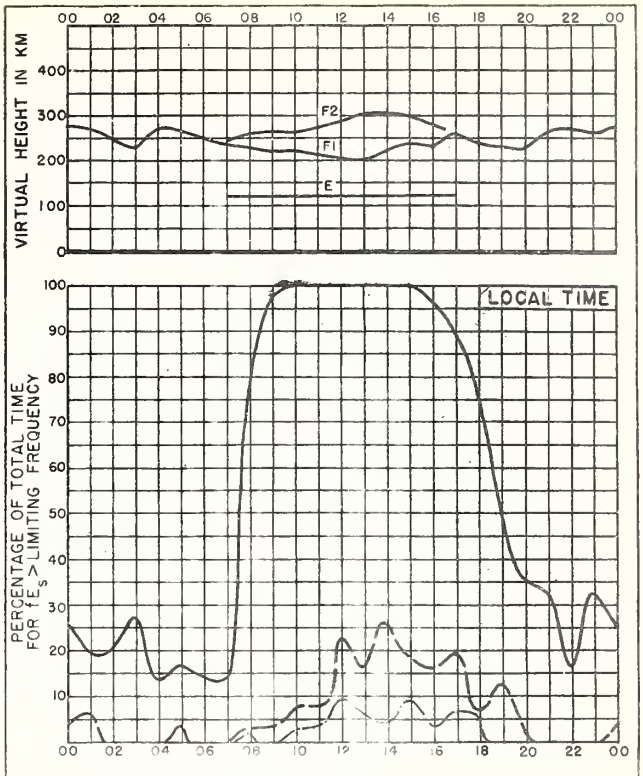


Fig. 26. TRINIDAD, BRIT. WEST INDIES JANUARY, 1946

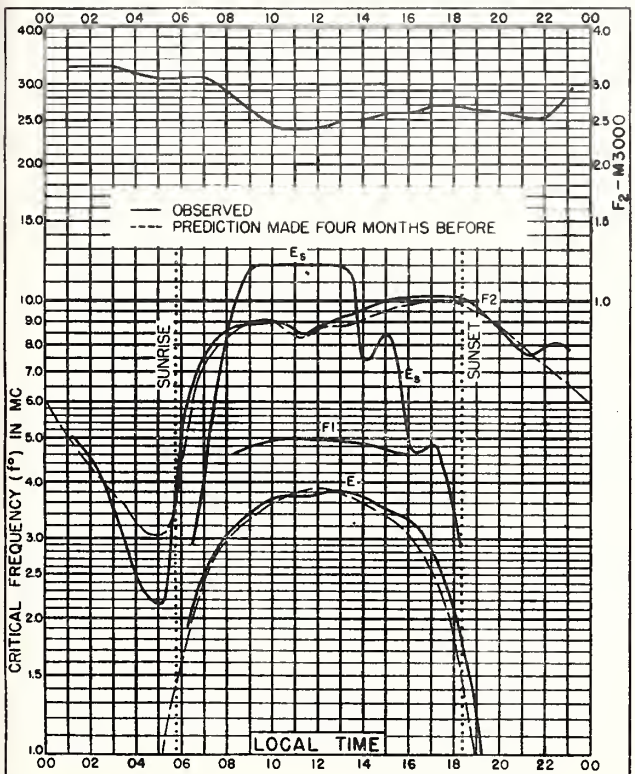


Fig. 27. HUANCAYO, PERU
12.0°S, 75.3°W JANUARY, 1946

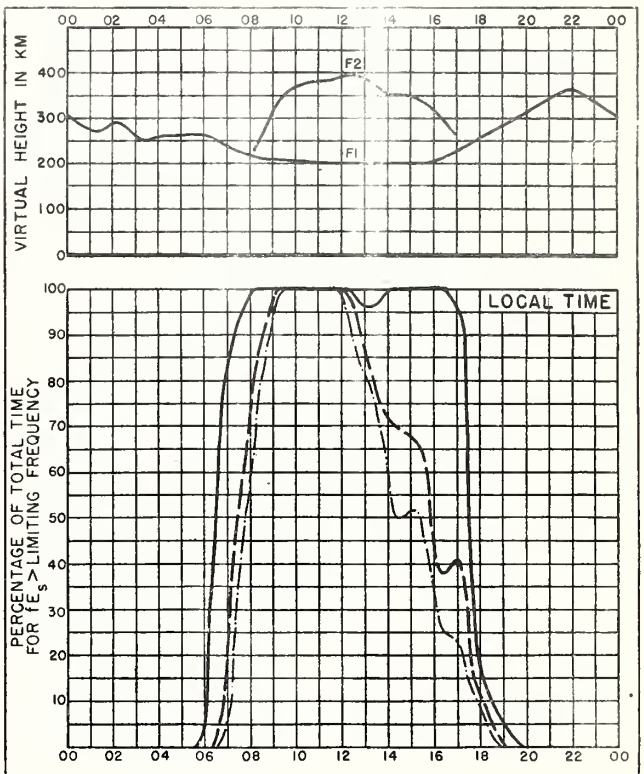


Fig. 28. HUANCAYO, PERU JANUARY, 1946

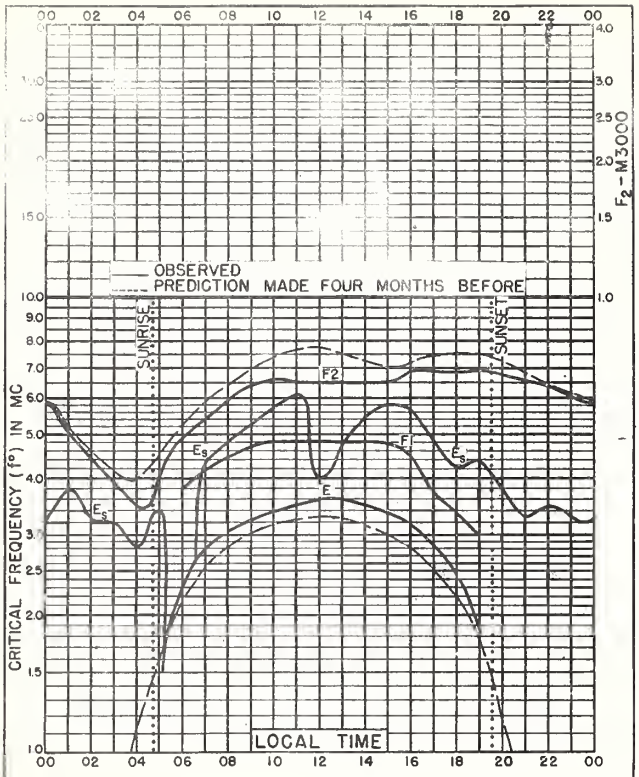


Fig. 29 CHRISTCHURCH, N.Z.
43.5°S, 172.6°E JANUARY, 1946

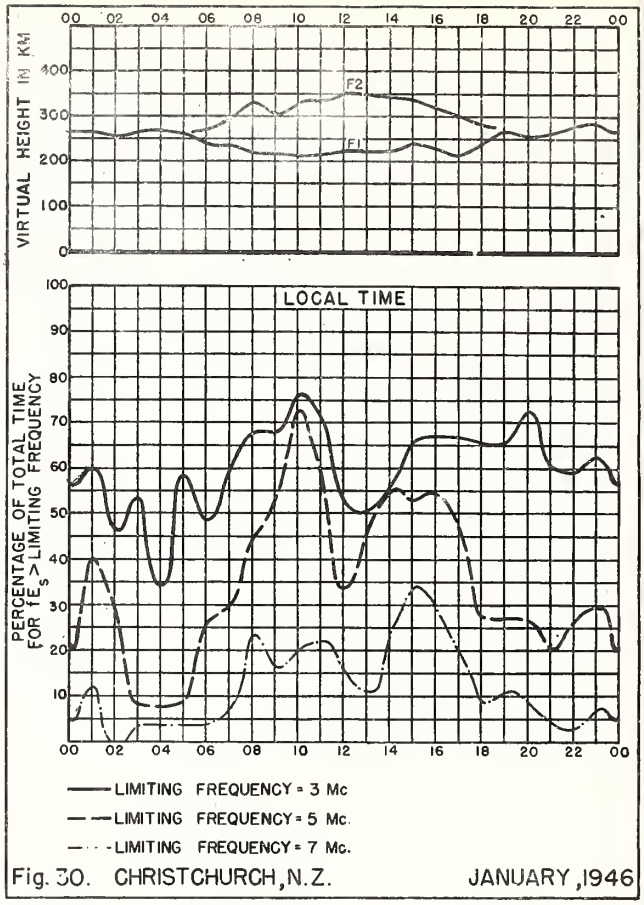


Fig. 30. CHRISTCHURCH, N.Z. JANUARY, 1946

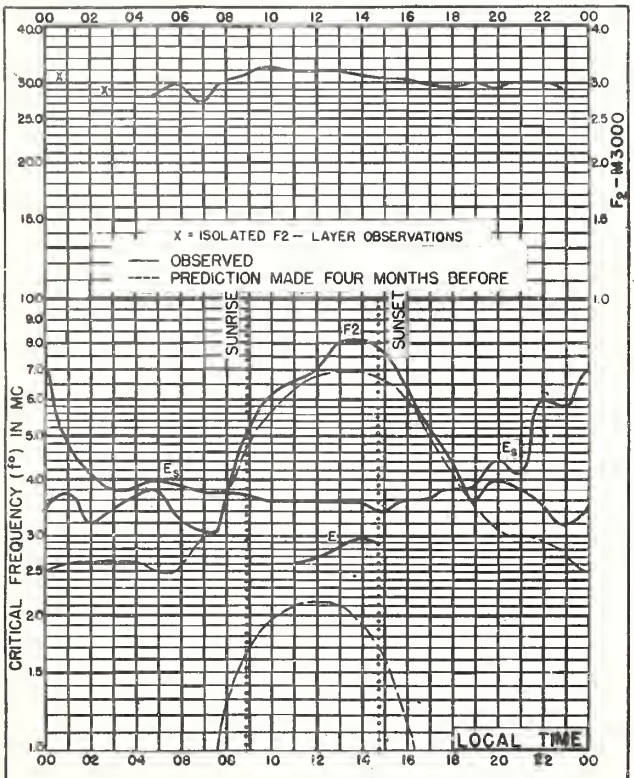


Fig. 31. CHURCHILL, CANADA
58.8°N, 94.2°W DECEMBER, 1945

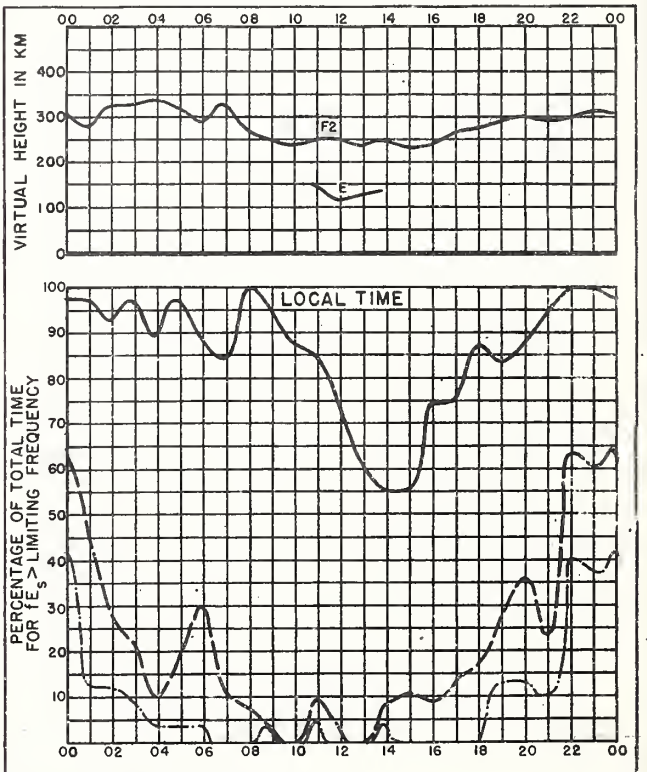


Fig. 32. CHURCHILL, CANADA DECEMBER, 1945

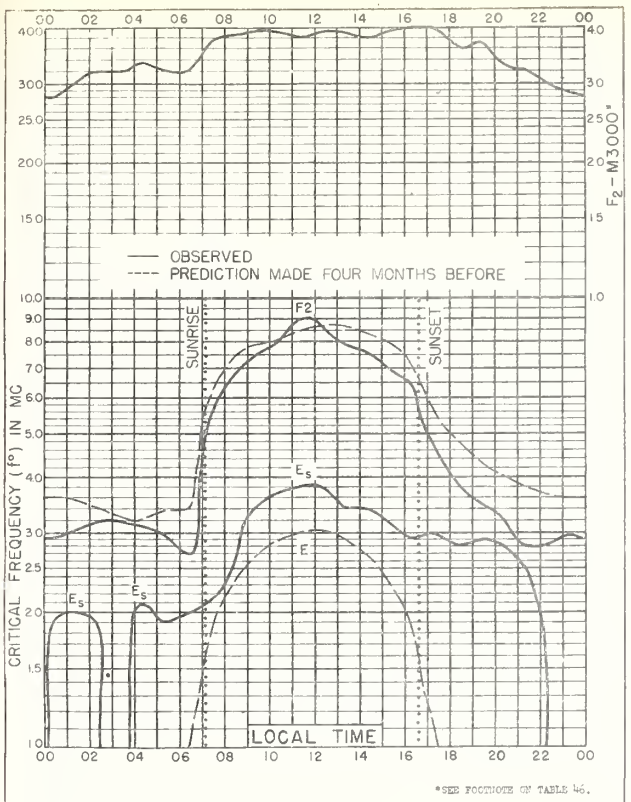


Fig. 33. TOKYO, JAPAN
35.6°N, 139.6°E DECEMBER, 1945

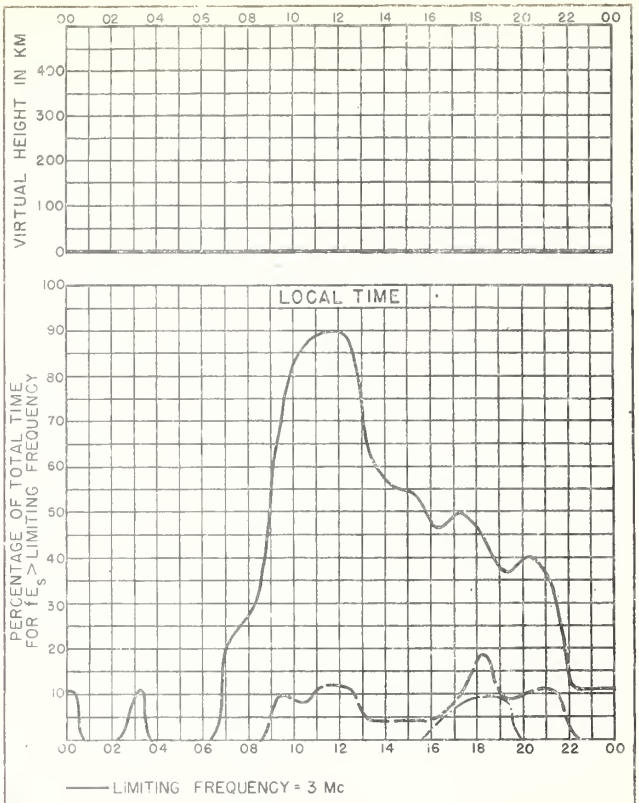


Fig. 34. TOKYO, JAPAN DECEMBER, 1945

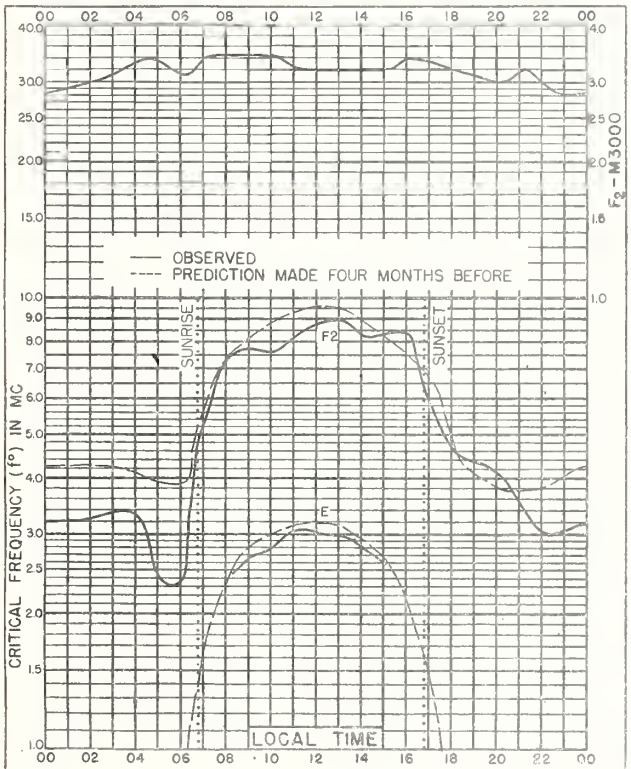


Fig. 35. CAIRO, EGYPT
30.0°N, 31.2°E DECEMBER, 194

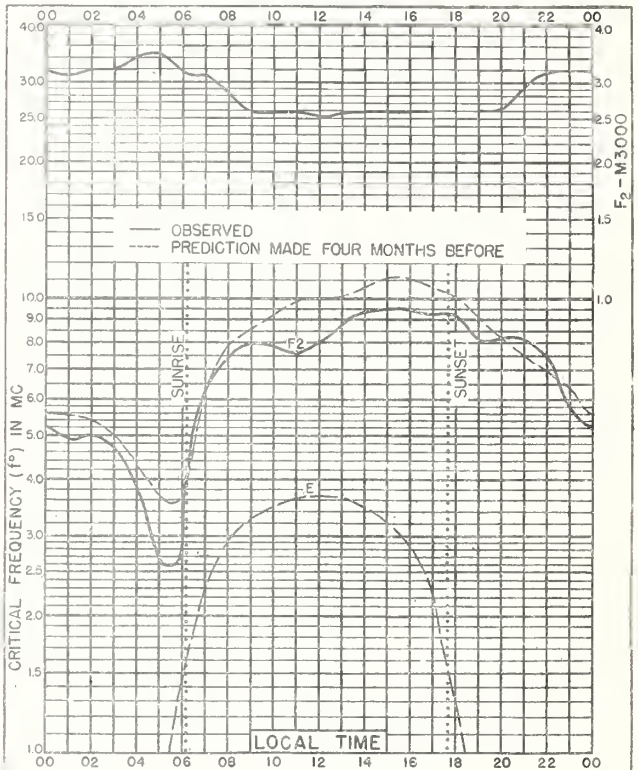


Fig. 36 COLOMBO, CEYLON
6.6°N, 80.0°E DECEMBER, 1945

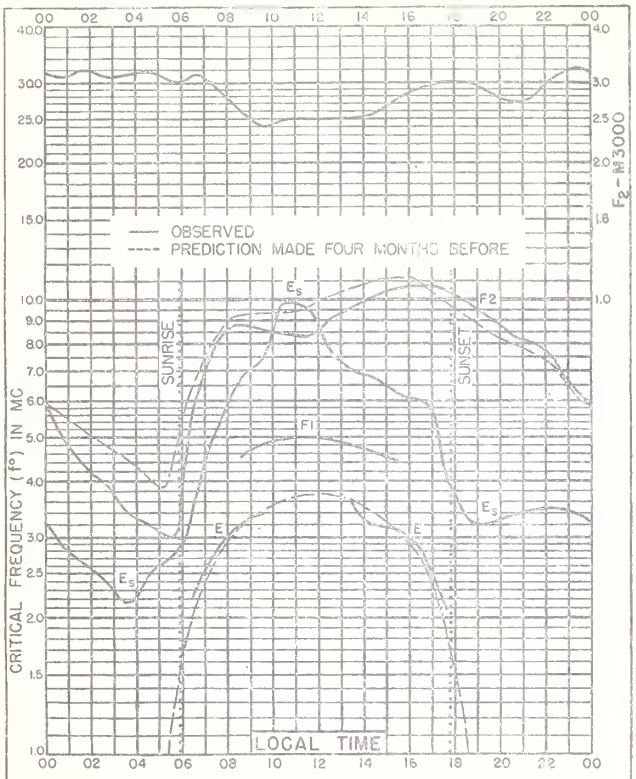


Fig. 37. CHRISTMAS I.
1.9°N, 157.3°W DECEMBER, 1945

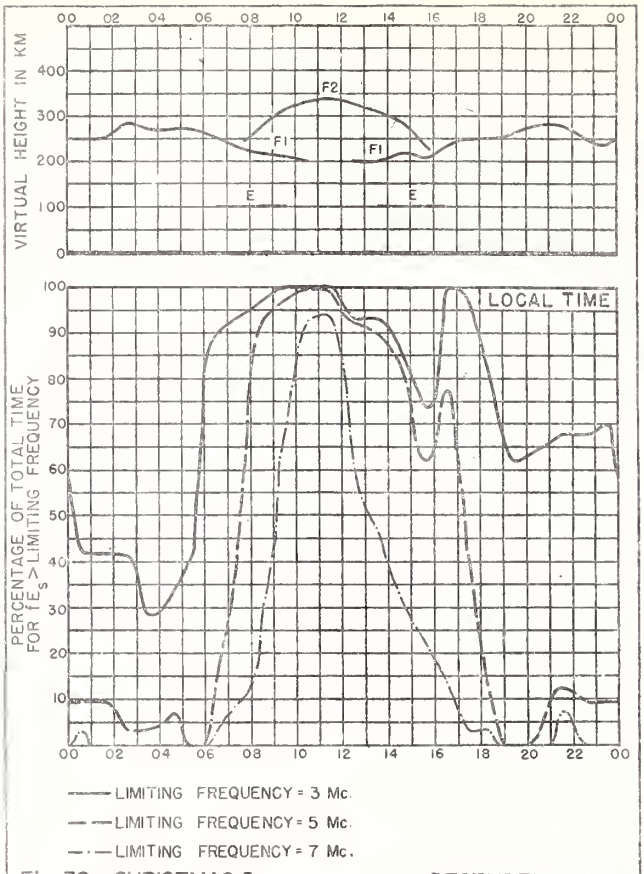


Fig. 38. CHRISTMAS I. DECEMBER, 1945

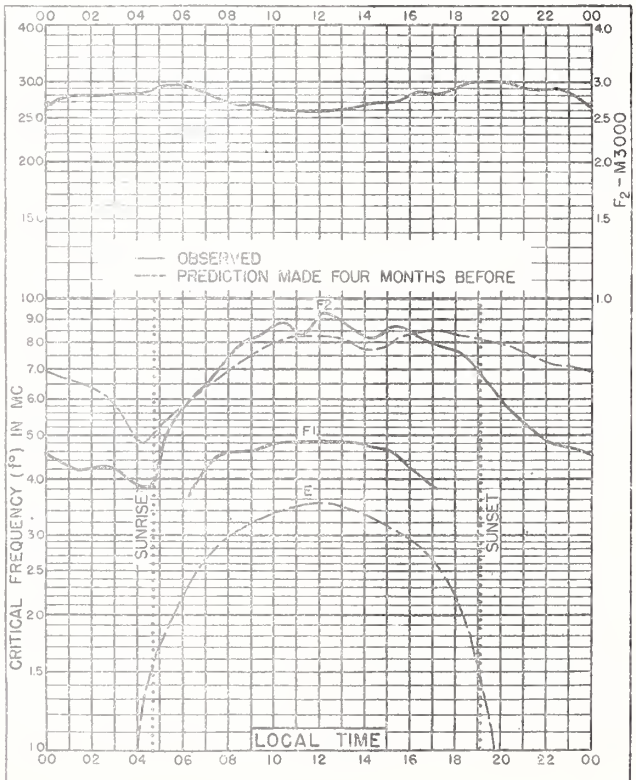


Fig. 39. CAPETOWN (SIMONSTOWN), UNION OF S. AFRICA
33.9°S, 18.7°E DECEMBER, 1945

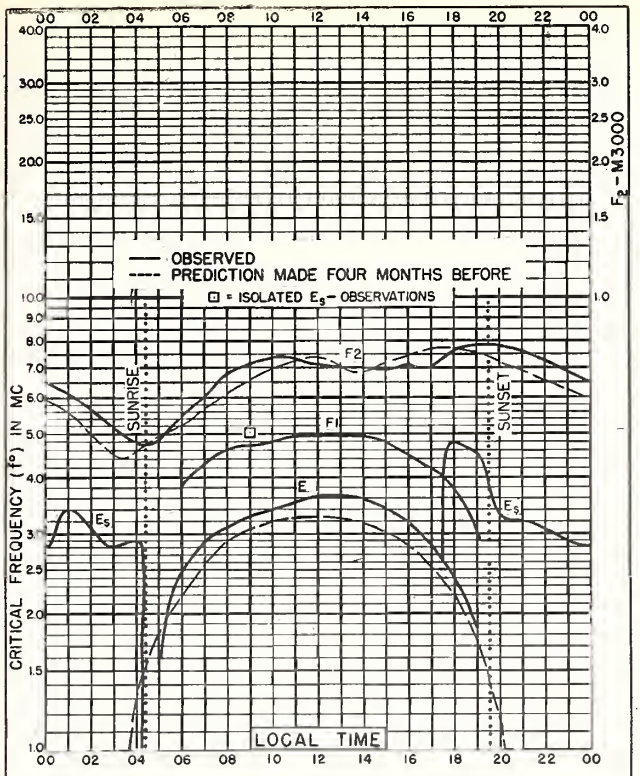


Fig. 40. CHRISTCHURCH, N.Z.
43.5°S, 172.6°E DECEMBER, 1945

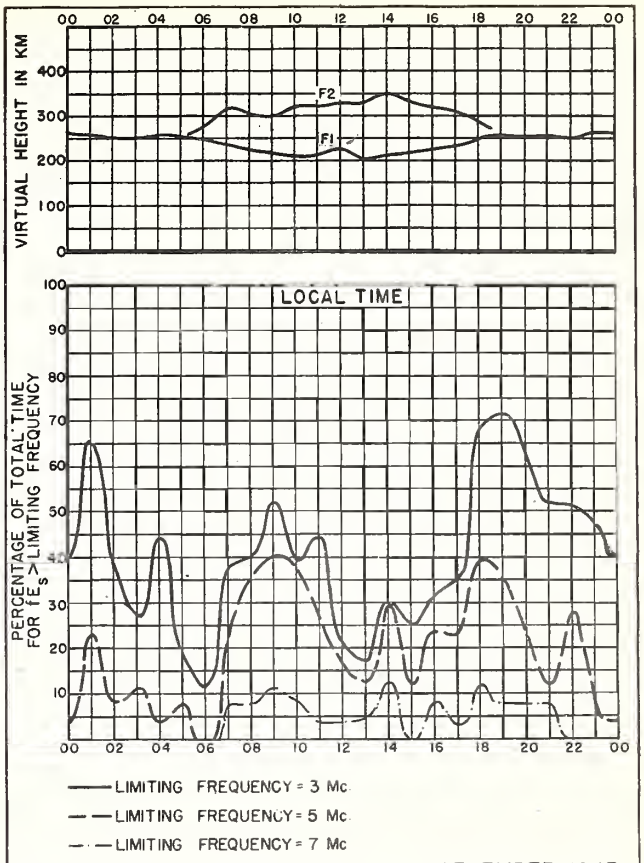


Fig. 41. CHRISTCHURCH, N.Z. DECEMBER, 1945

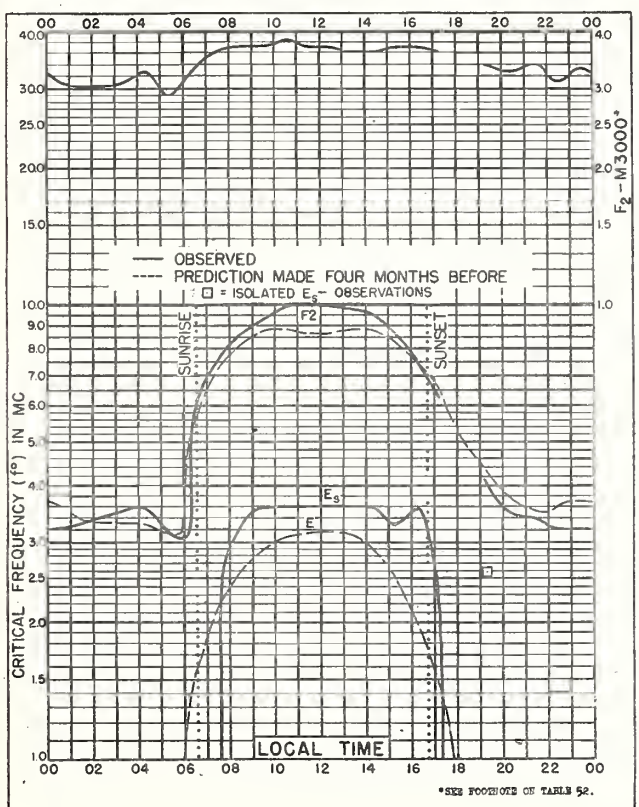


Fig. 42. TOKYO, JAPAN
35.6°N, 139.6°E NOVEMBER, 1945

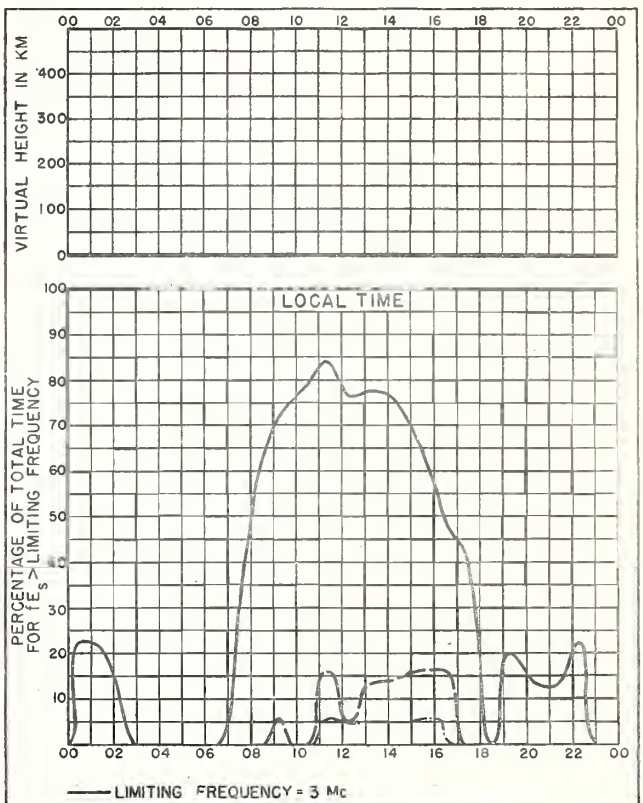


Fig. 43. TOKYO, JAPAN NOVEMBER, 1945

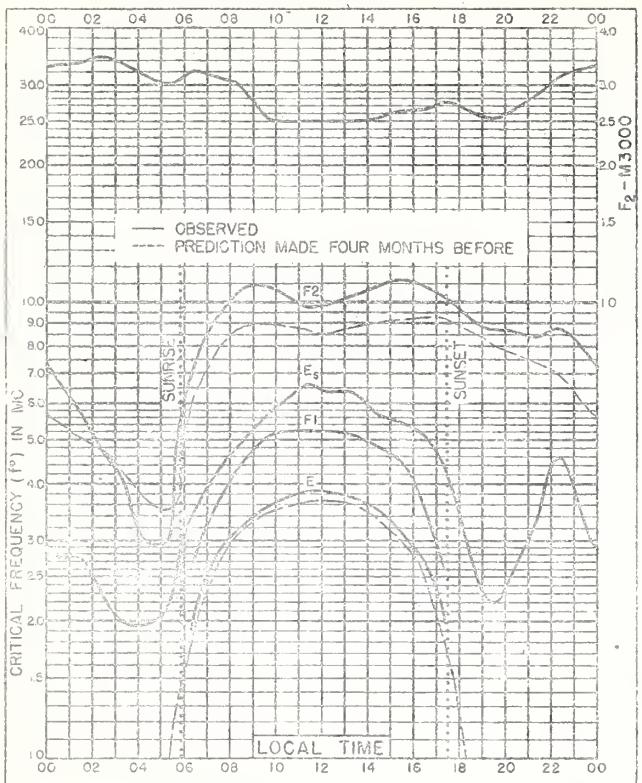


Fig. 44. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E NOVEMBER, 1945

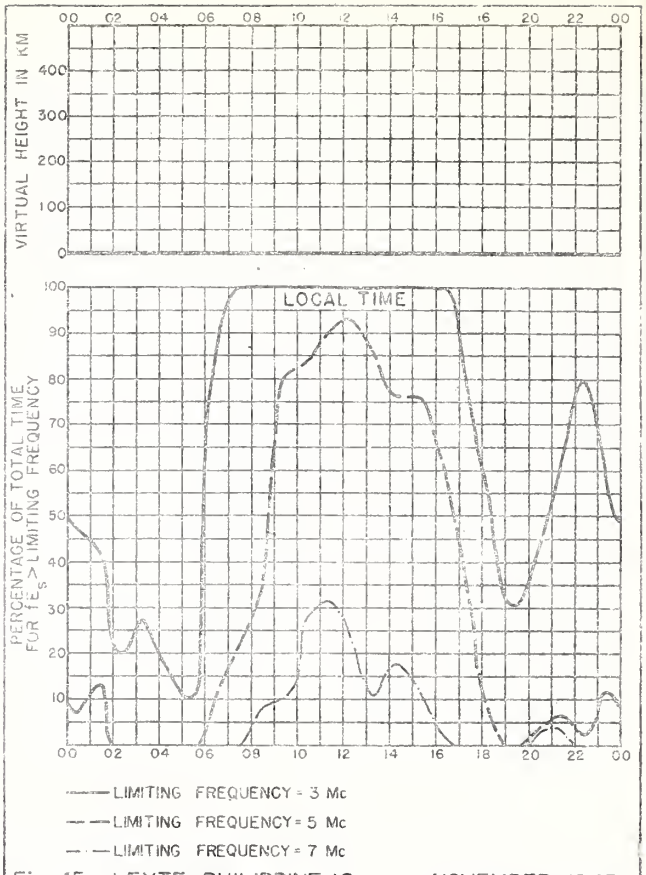


Fig. 45. LEYTE, PHILIPPINE IS. NOVEMBER, 1945

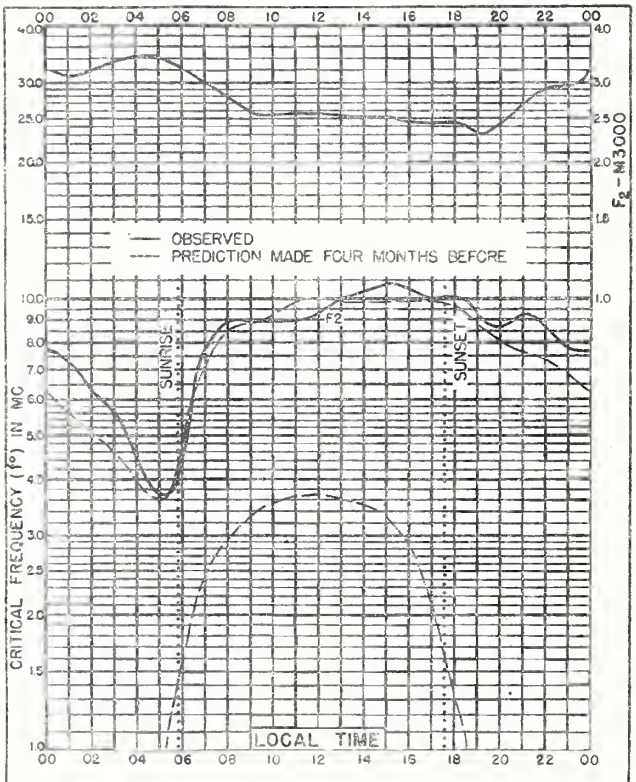


Fig. 46. COLOMBO, CEYLON
6.6°N, 80.0°E NOVEMBER, 1945

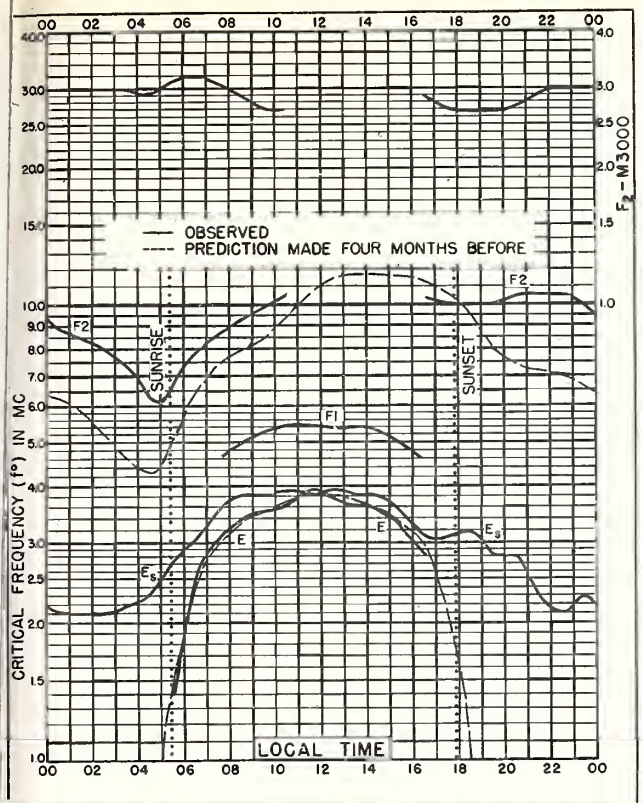


Fig. 47. CAPE YORK, AUSTRALIA
11.0°S, 142.4°E NOVEMBER, 1945

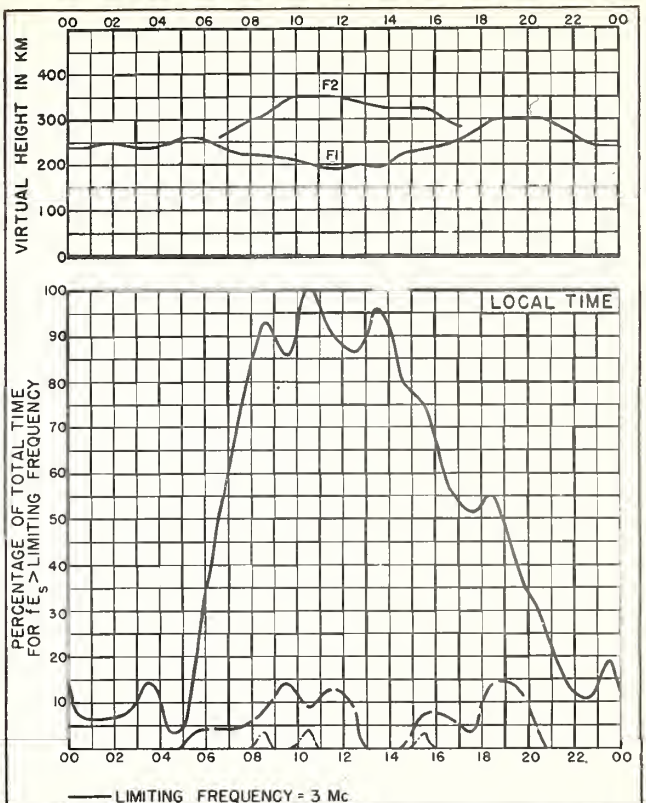


Fig. 48. CAPE YORK, AUSTRALIA NOVEMBER, 1945

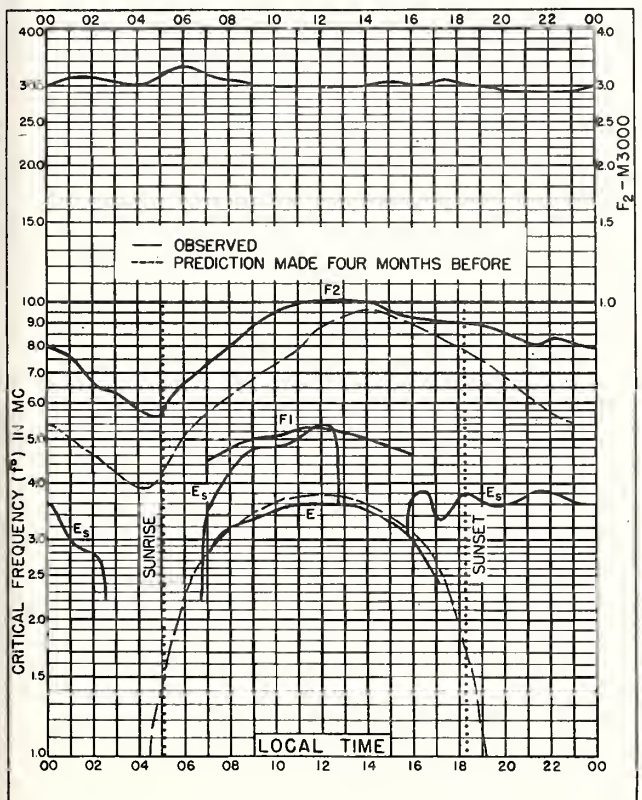


Fig. 49. BRISBANE, AUSTRALIA
27.5°S, 153.0°E NOVEMBER, 1945

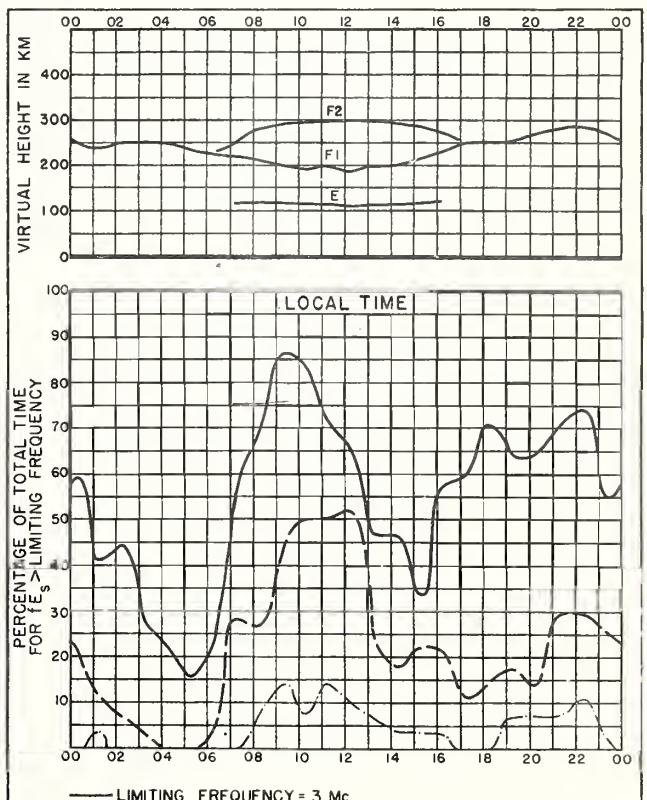


Fig. 50. BRISBANE, AUSTRALIA NOVEMBER, 1945

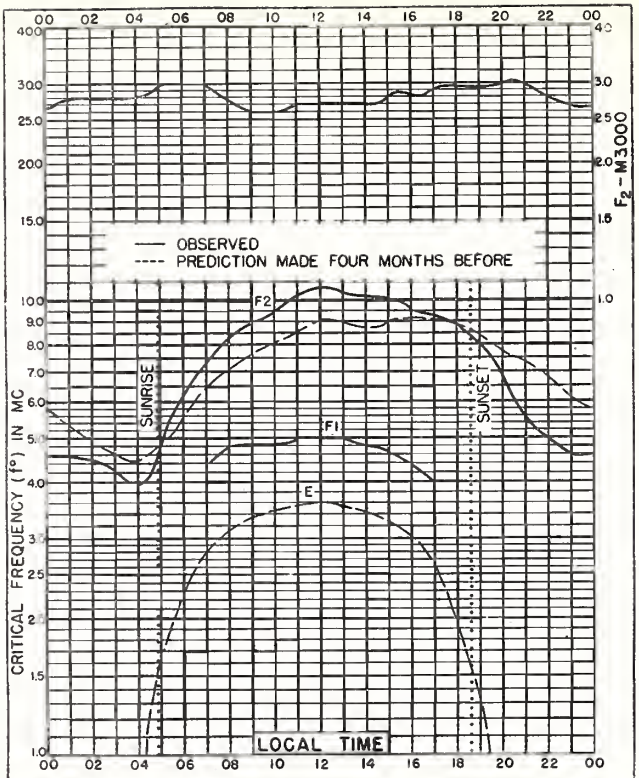


Fig. 51. CAPETOWN (SIMONSTOWN), UNION OF S. AFRICA
33.9°S, 18.7°E NOVEMBER, 1945

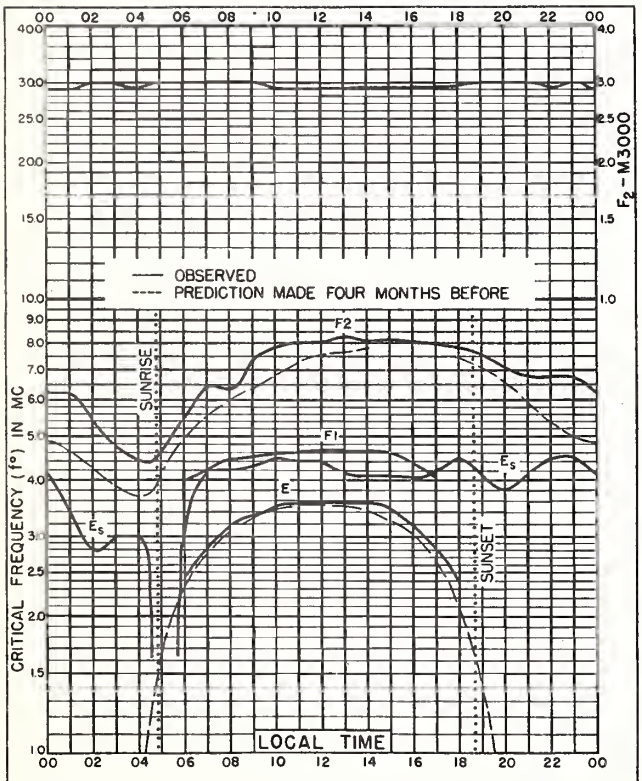


Fig. 52. CANBERRA, AUSTRALIA
35.3°S, 149.0°E NOVEMBER, 1945

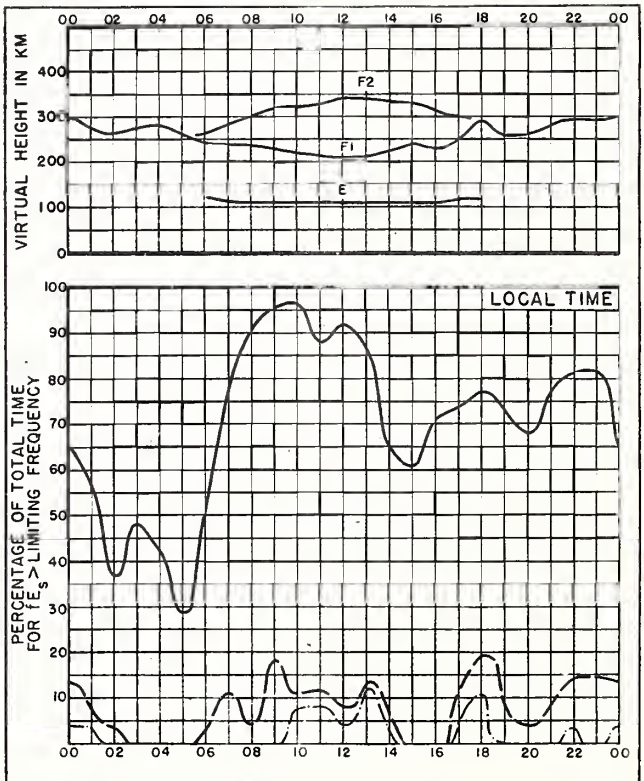
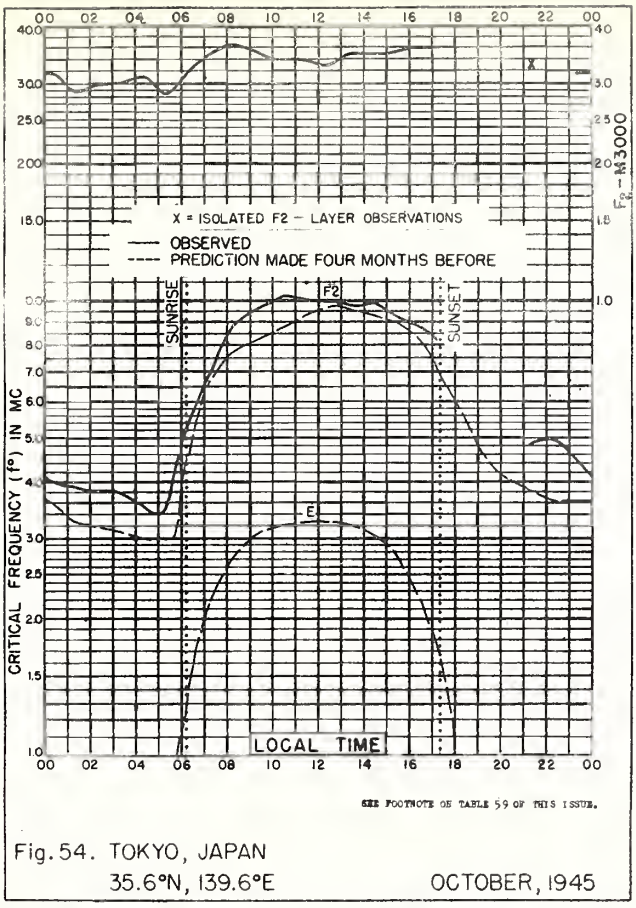


Fig. 53. CANBERRA, AUSTRALIA NOVEMBER, 1945



SEE FOOTNOTE ON TABLE 59 OF THIS ISSUE.

Fig. 54. TOKYO, JAPAN
35.6°N, 139.6°E OCTOBER, 1945

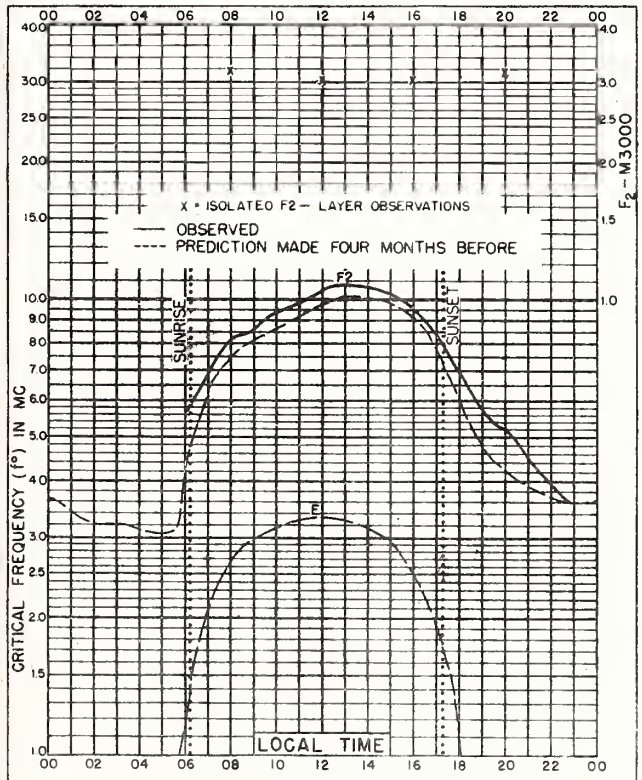


Fig. 55. PESHAWAR, INDIA
34.0°N, 71.5°E OCTOBER, 1945

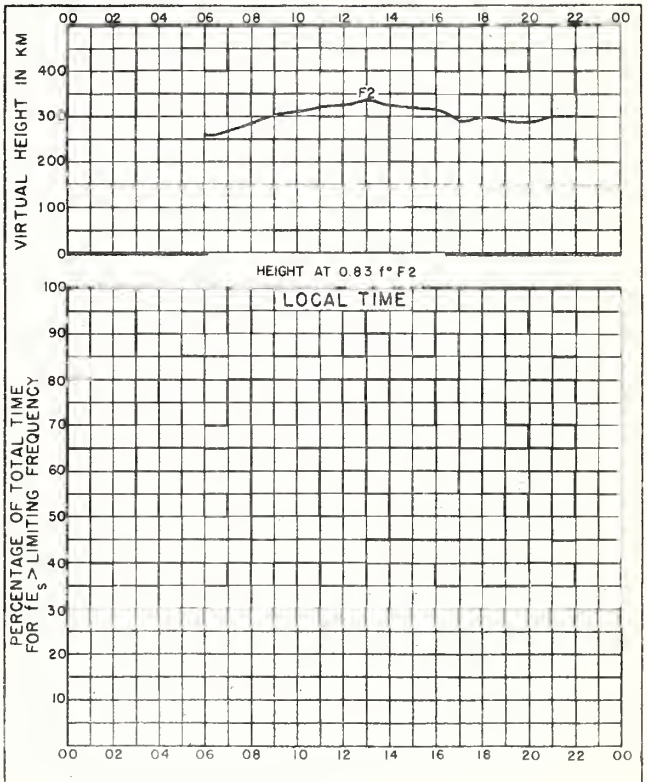


Fig. 56. PESHAWAR, INDIA OCTOBER, 1945

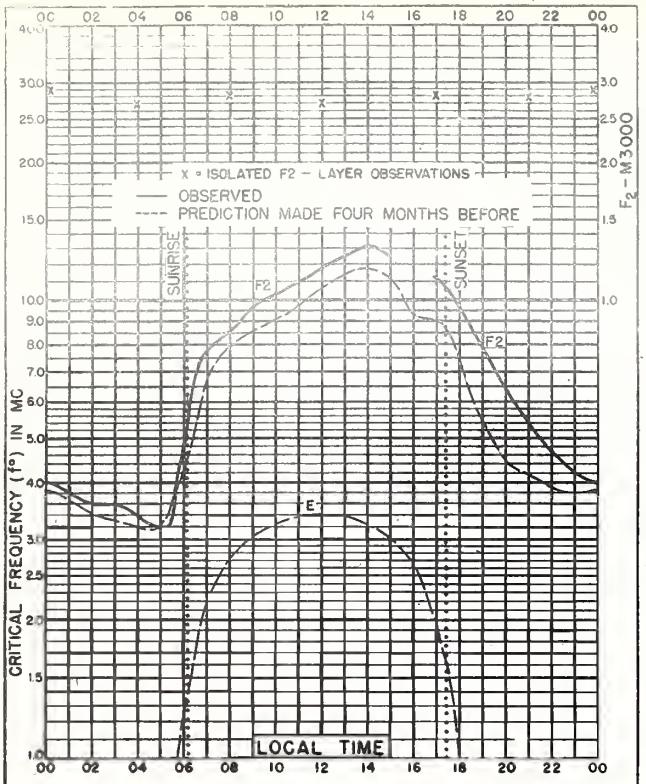


Fig. 57. DELHI, INDIA
28.6°N, 77.2°E OCTOBER, 1945

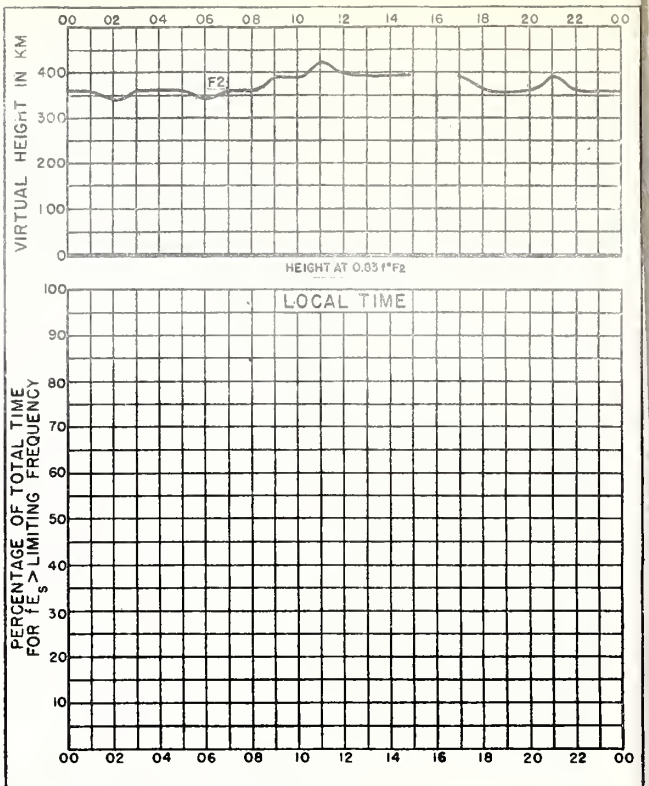


Fig. 58. DELHI, INDIA OCTOBER, 1945

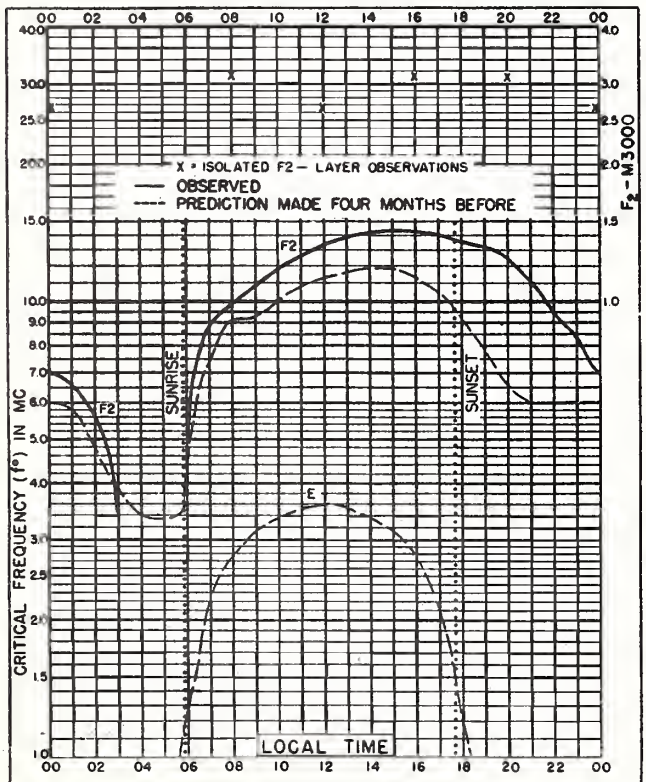


Fig. 59. BOMBAY, INDIA
19.0°N, 73.0°E OCTOBER, 1945

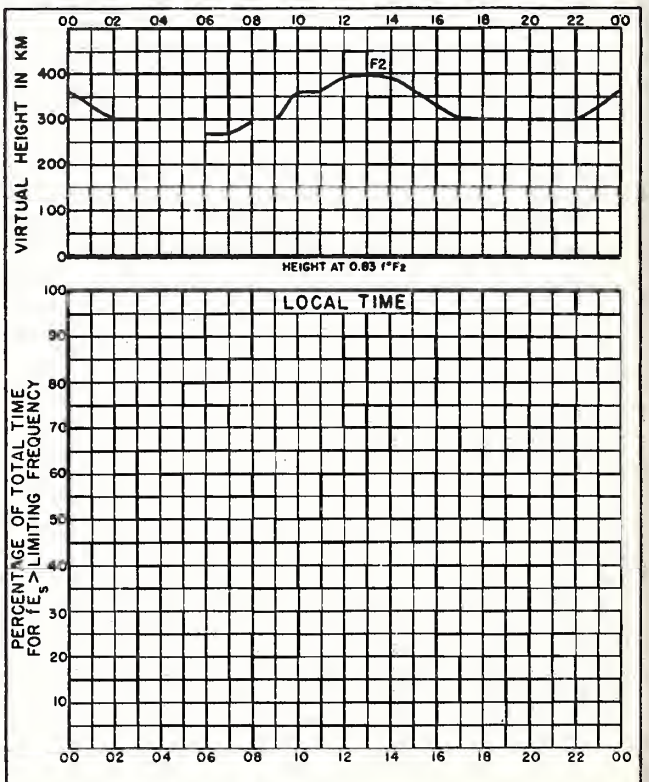


Fig. 60. BOMBAY, INDIA OCTOBER, 1945

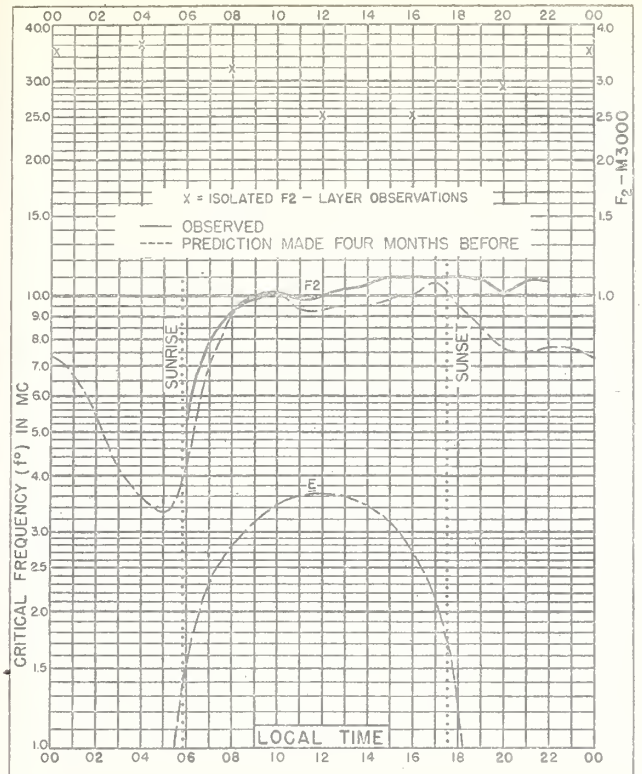


Fig. 61. MADRAS, INDIA
13.0°N, 80.2°E OCTOBER, 1945

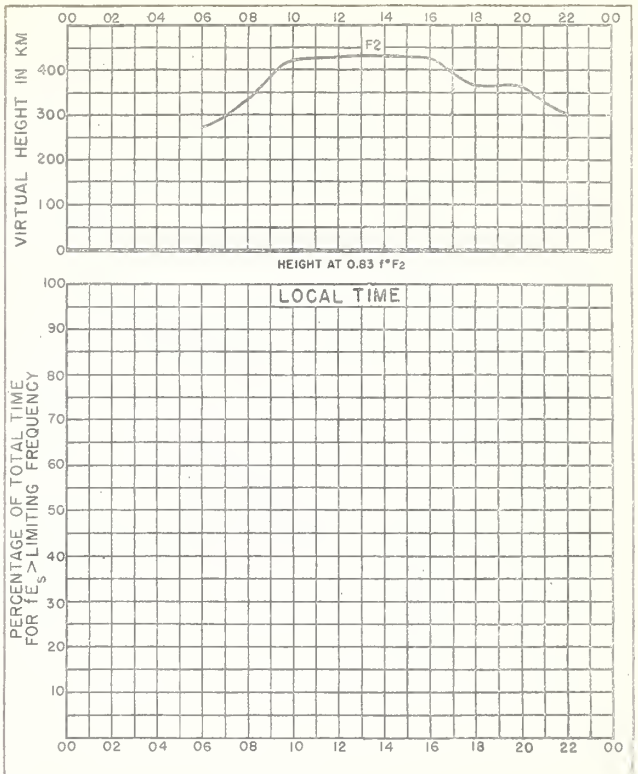


Fig. 62. MADRAS, INDIA OCTOBER, 1945

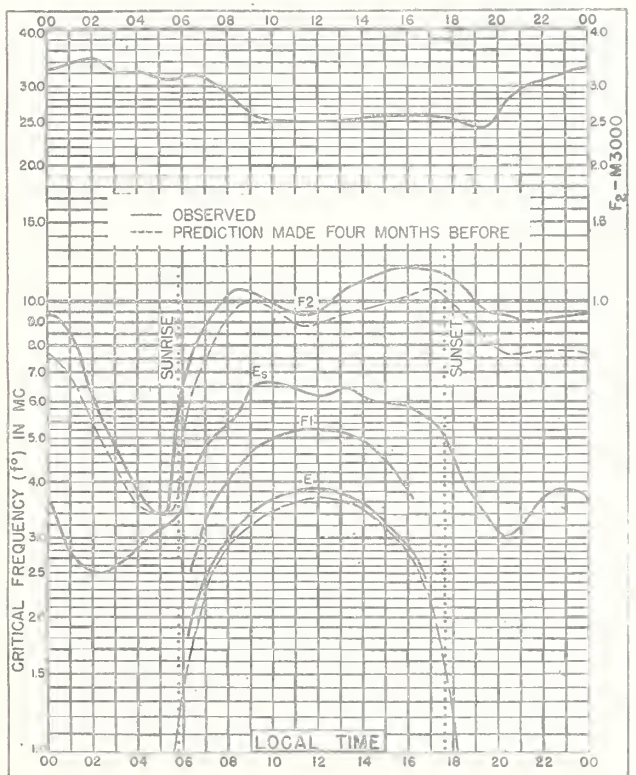


Fig. 63. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E OCTOBER, 1945

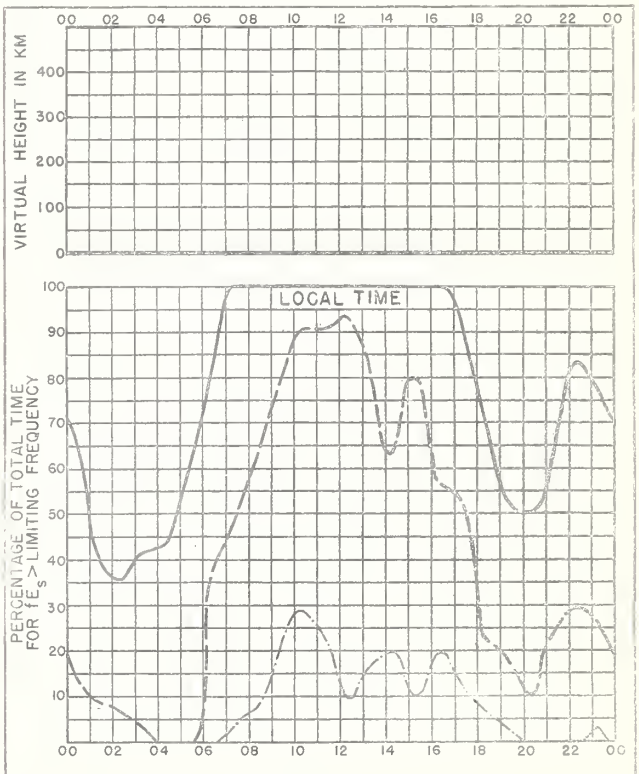


Fig. 64. LEYTE, PHILIPPINE IS. OCTOBER, 1945

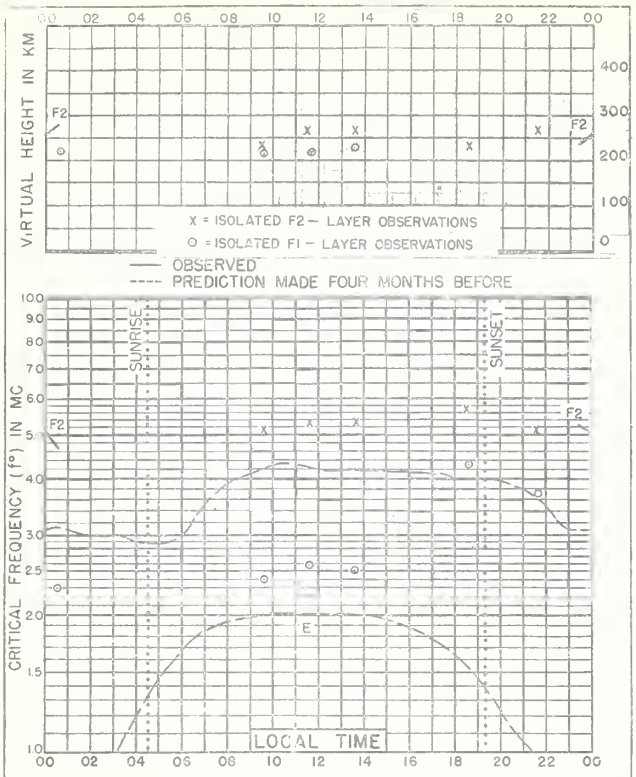


Fig. 65. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E SEPTEMBER, 1945

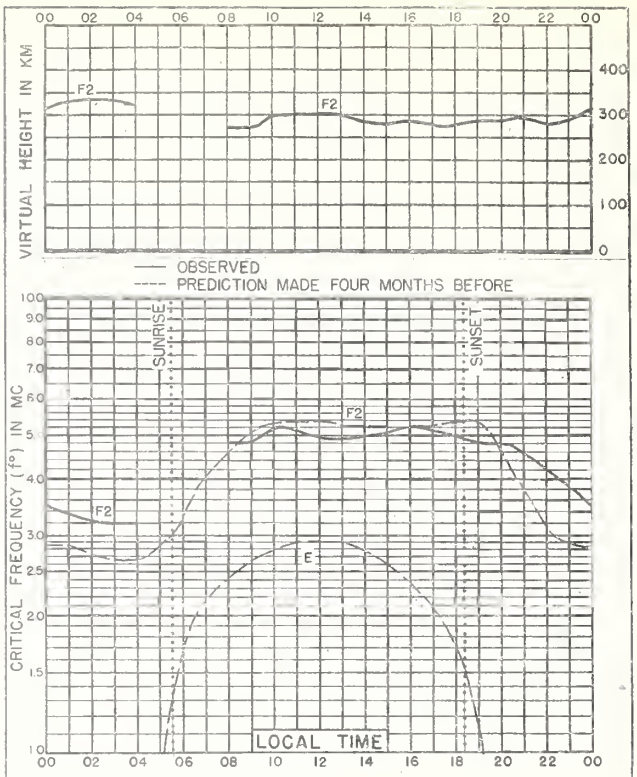


Fig. 66. LENINGRAD, U.S.S.R.
59.7°N, 30.5°E SEPTEMBER, 1945

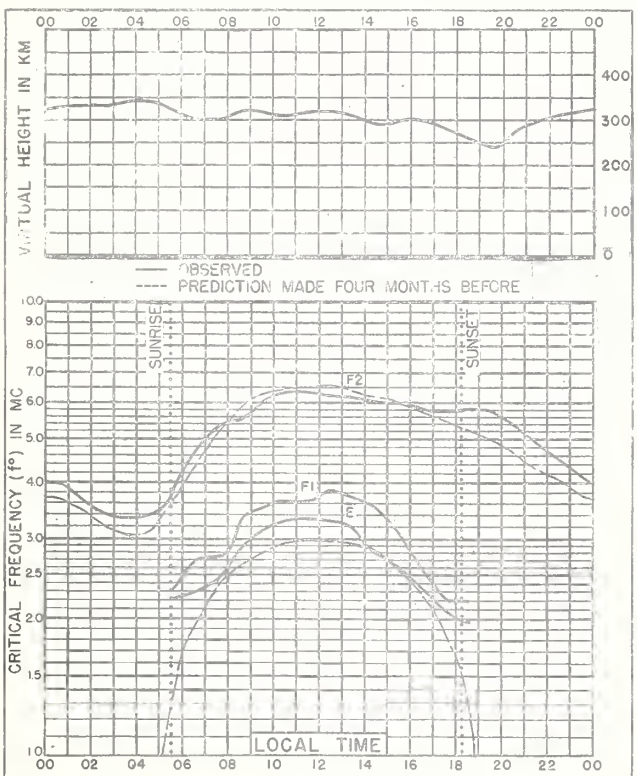


Fig. 67. MOSCOW, U.S.S.R.
55.8°N, 37.6°E SEPTEMBER, 1945

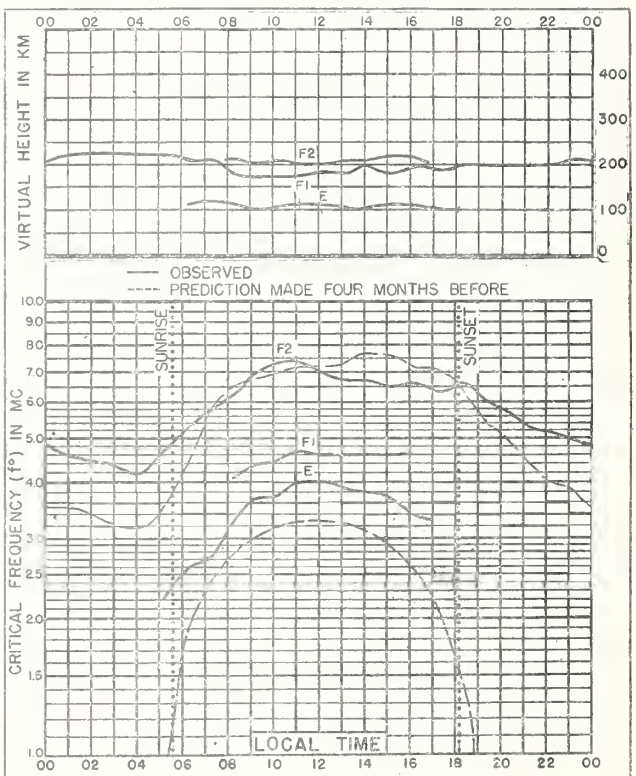


Fig. 68. ALMA ATA, U.S.S.R.
43.5°N, 76.5°E SEPTEMBER, 1945

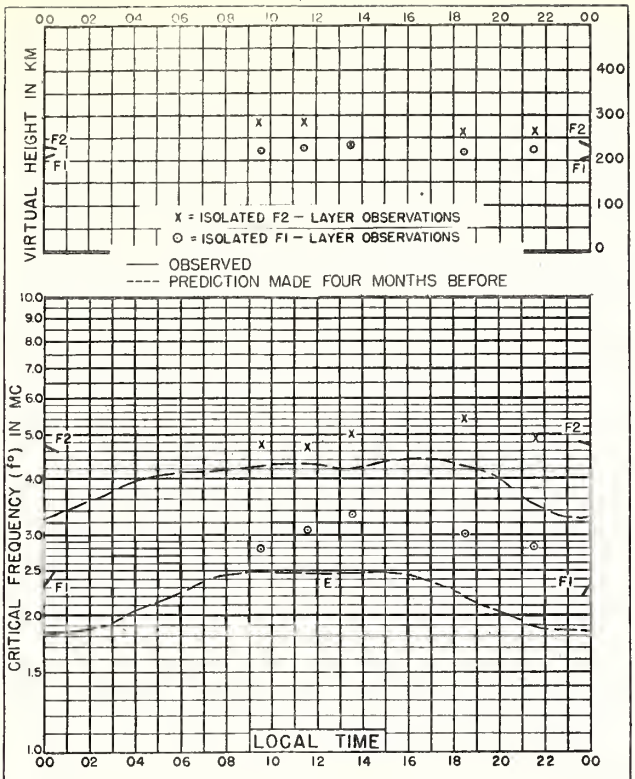


Fig. 69. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E AUGUST, 1945

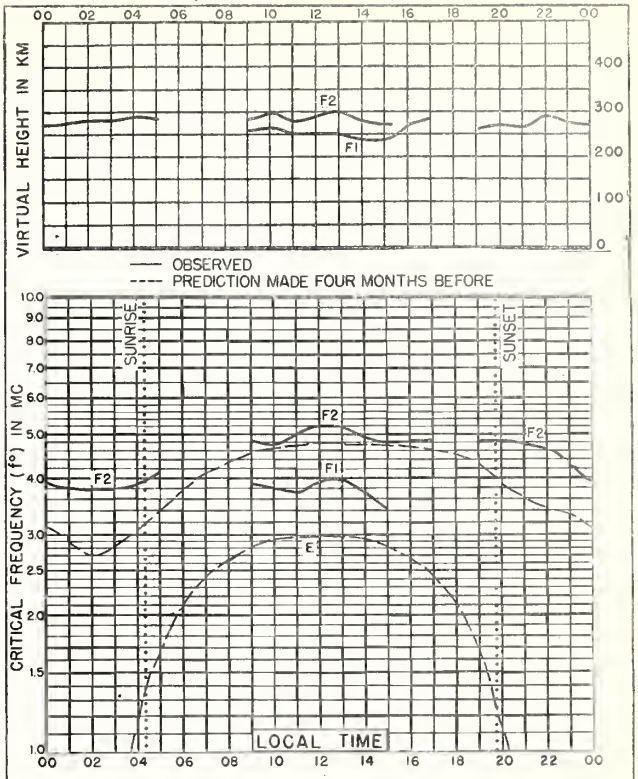


Fig. 70. LENINGRAD, U.S.S.R.
59.7°N, 30.5°E AUGUST, 1945

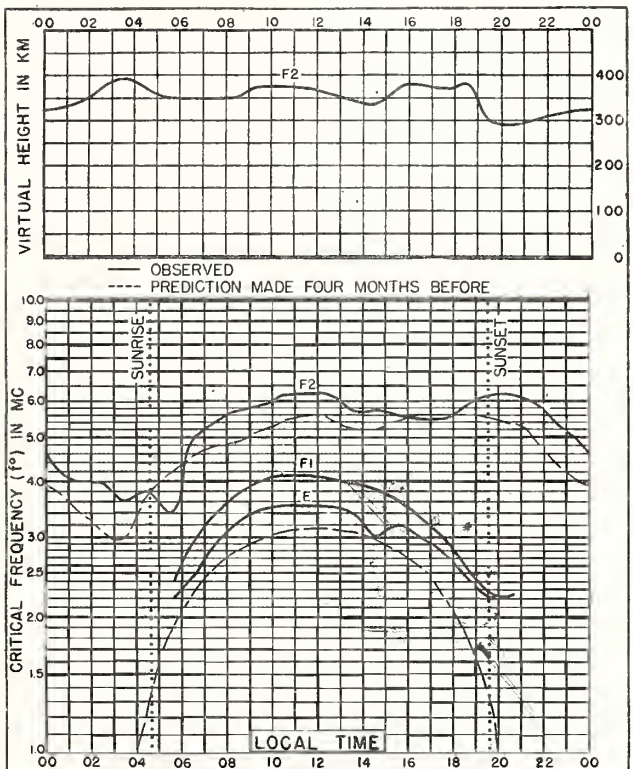


Fig. 71. MOSCOW, U.S.S.R.
55.8°N, 37.6°E AUGUST, 1945

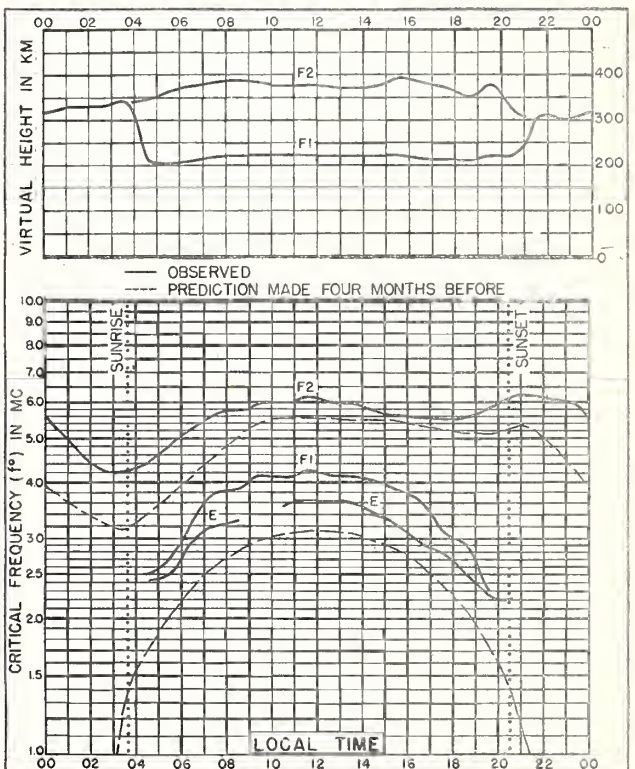


Fig. 72. MOSCOW, U.S.S.R.
55.8°N, 37.6°E JULY, 1945

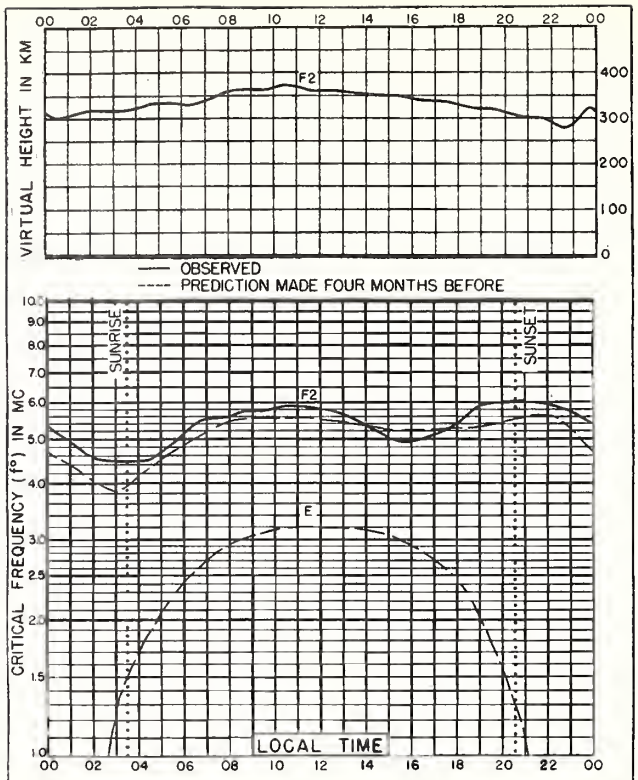


Fig. 73. MOSCOW, U.S.S.R.
55.8°N, 37.6°E JUNE, 1945

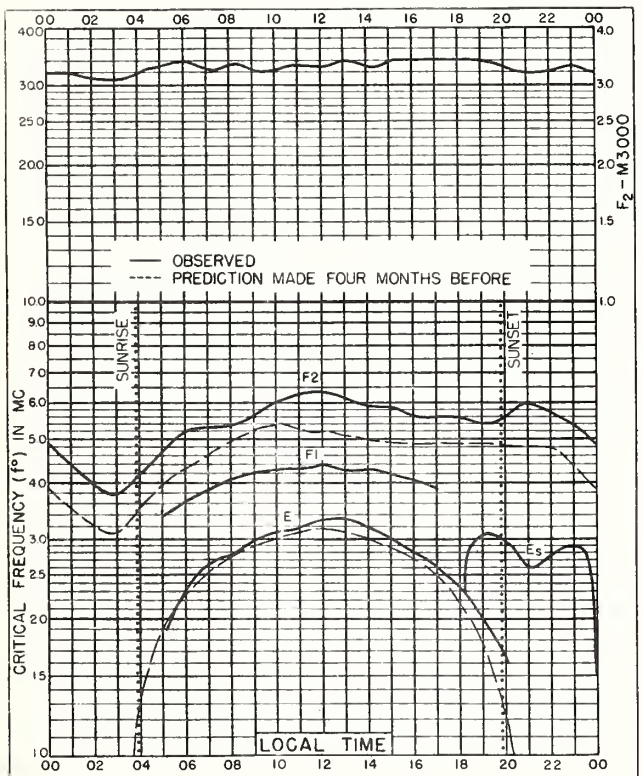


Fig. 74. SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E MAY, 1945

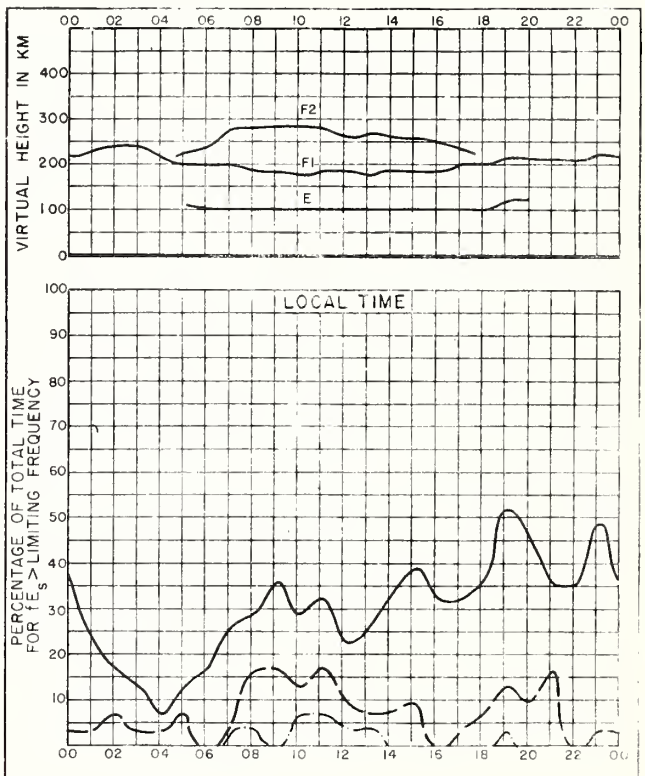


Fig. 75. SVERDLOVSK, U.S.S.R. MAY, 1945

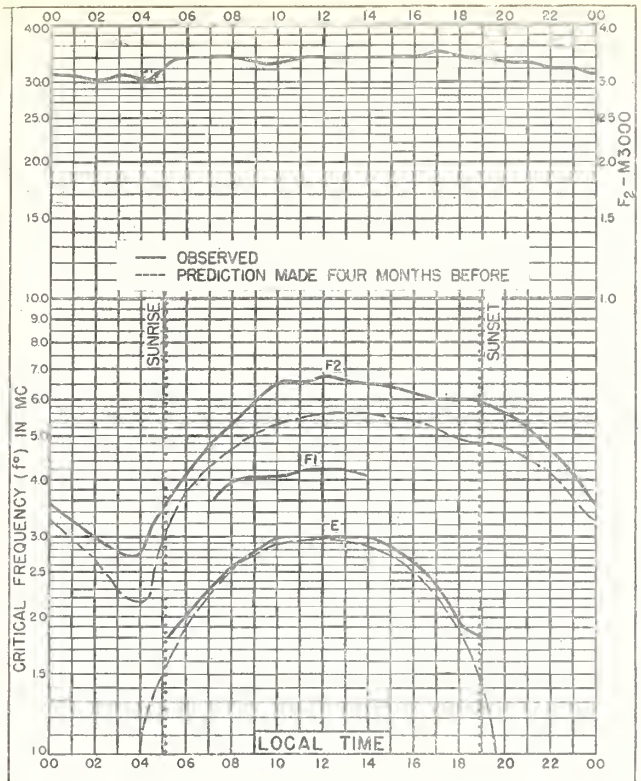


Fig. 76. SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E APRIL, 1945

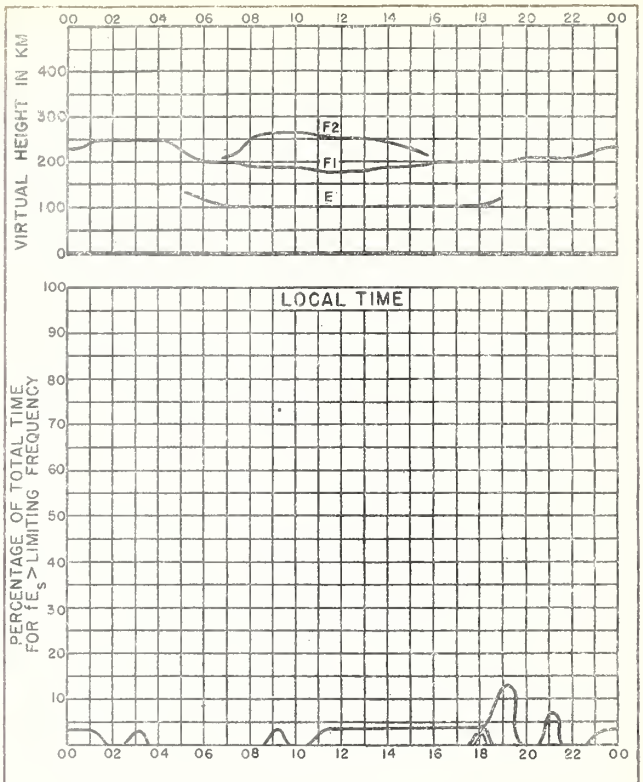


Fig. 77. SVERDLOVSK, U.S.S.R. APRIL, 1945

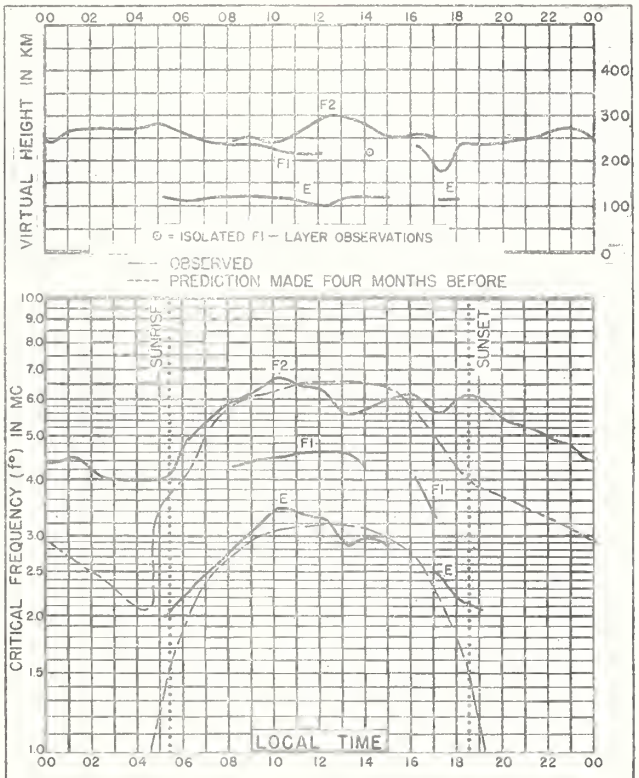
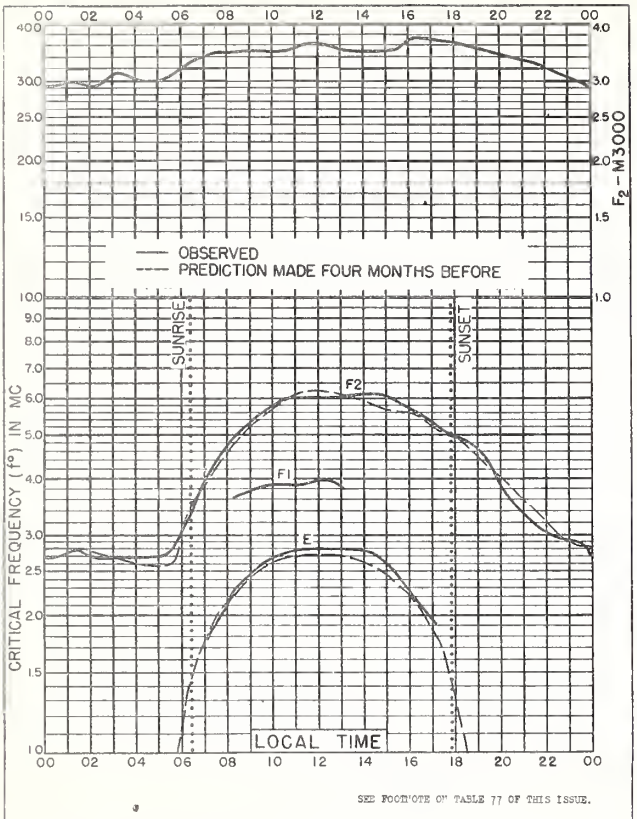


Fig. 78. ALMA ATA, U.S.S.R.
43.5°N, 76.5°E APRIL, 1945



SEE FOOTNOTE ON TABLE 77 OF THIS ISSUE.

Fig. 79. SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E MARCH, 1945

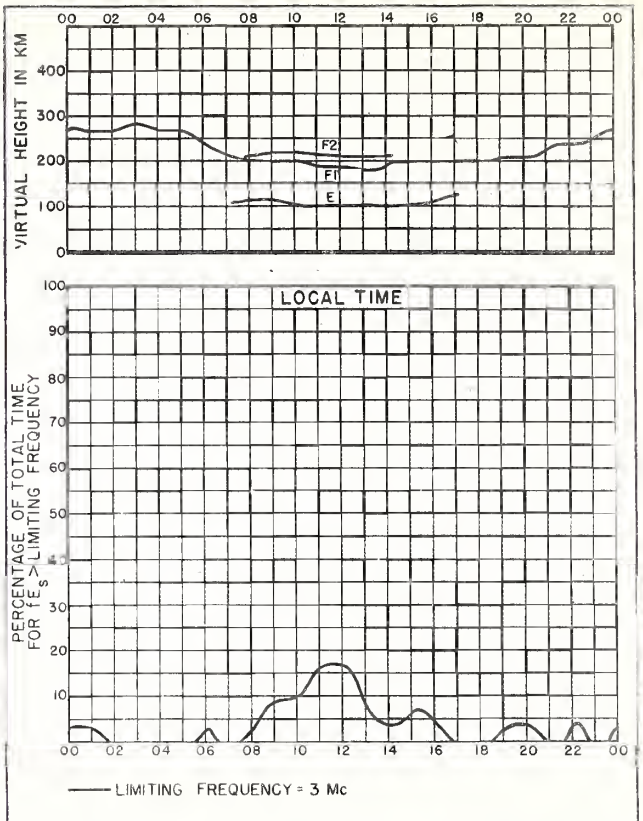
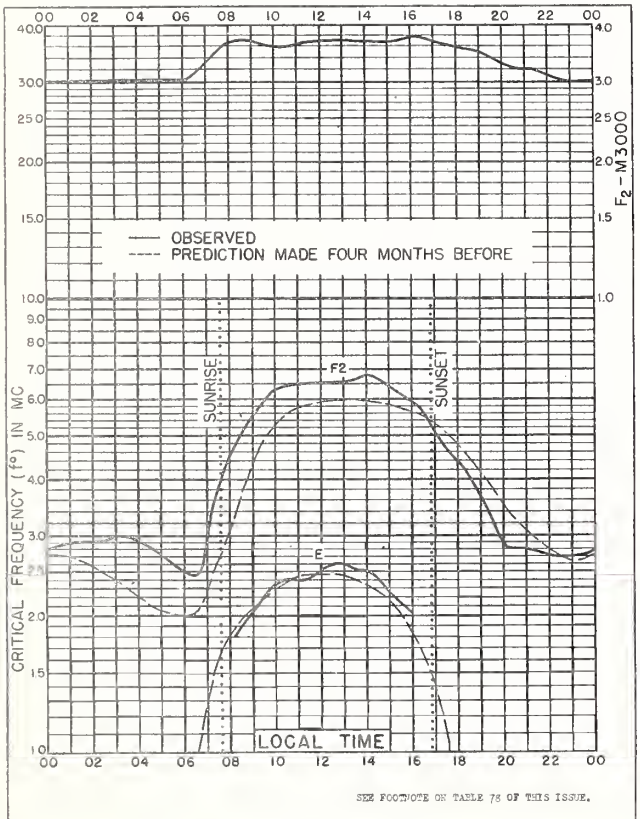


Fig. 80. SVERDLOVSK, U.S.S.R. MARCH, 1945



SEE FOOTNOTE ON TABLE 78 OF THIS ISSUE.

Fig. 81. SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E FEBRUARY, 1945

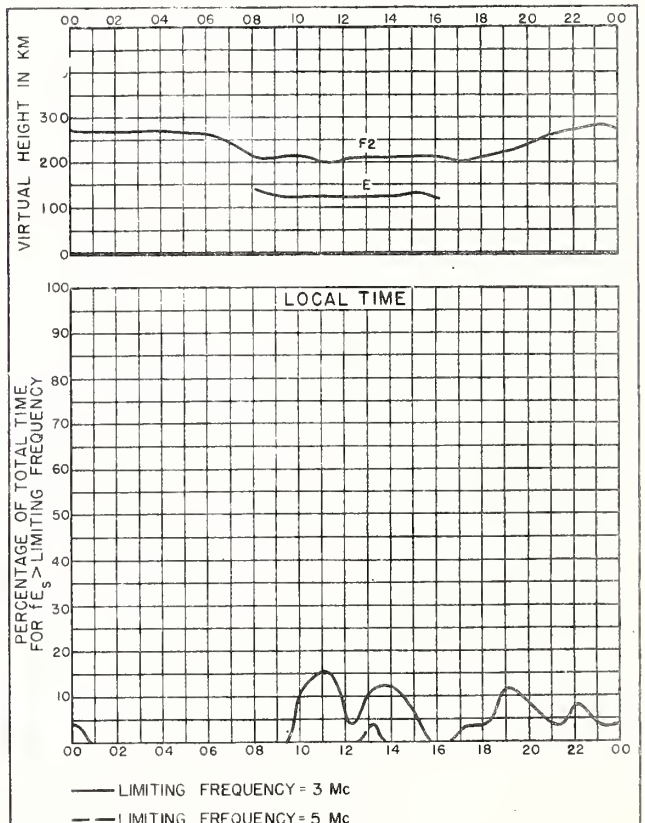
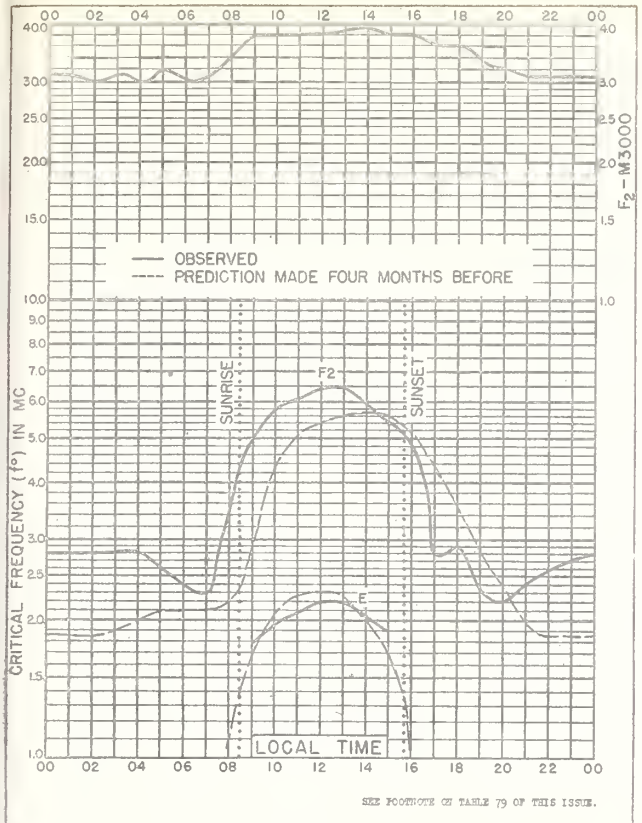


Fig. 82. SVERDLOVSK, U.S.S.R. FEBRUARY, 1945



SEE FOOTNOTE ON TABLE 79 OF THIS ISSUE.

Fig. 83 SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E JANUARY, 1945

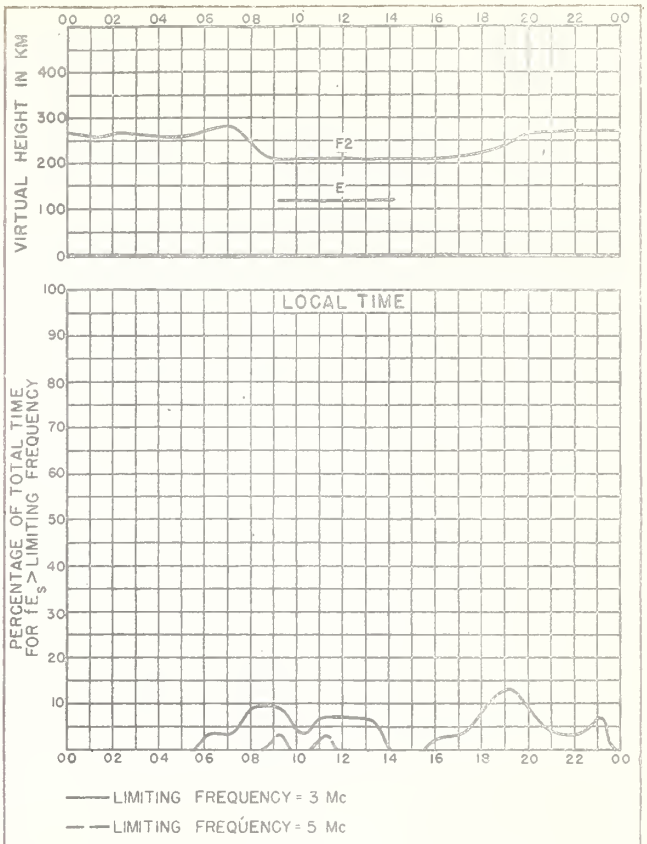


Fig. 84. SVERDLOVSK, U.S.S.R JANUARY, 1945

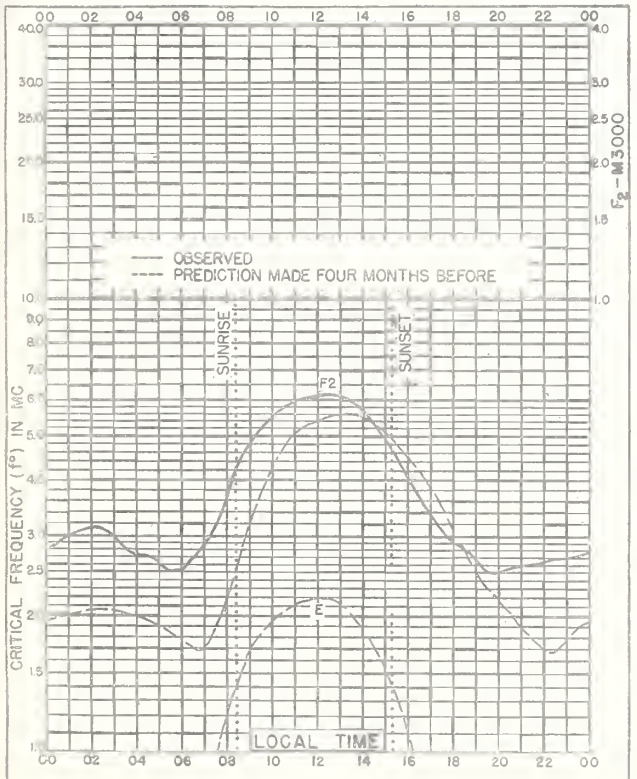


Fig. 85. MOSCOW, U.S.S.R.
55.8°N, 37.6°E DECEMBER, 1944

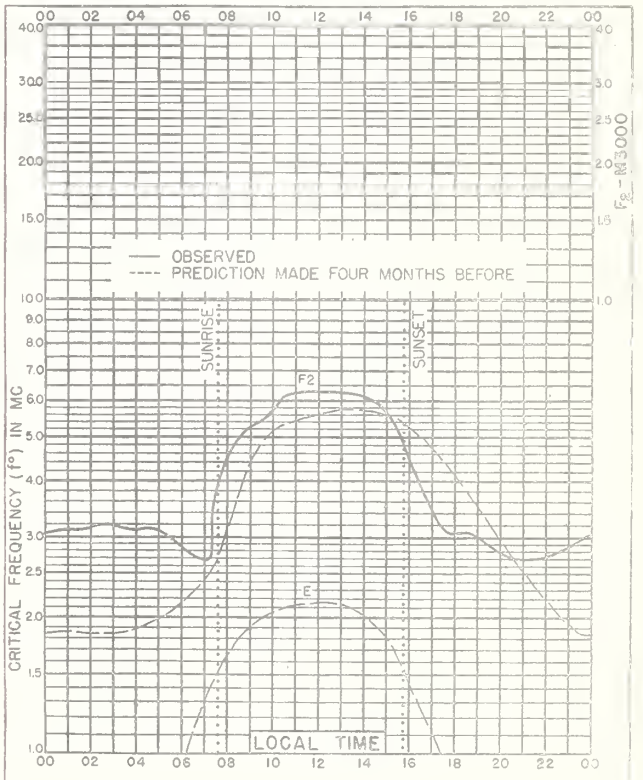


Fig. 86. MOSCOW, U.S.S.R.
55.8°N, 37.6°E NOVEMBER, 1944

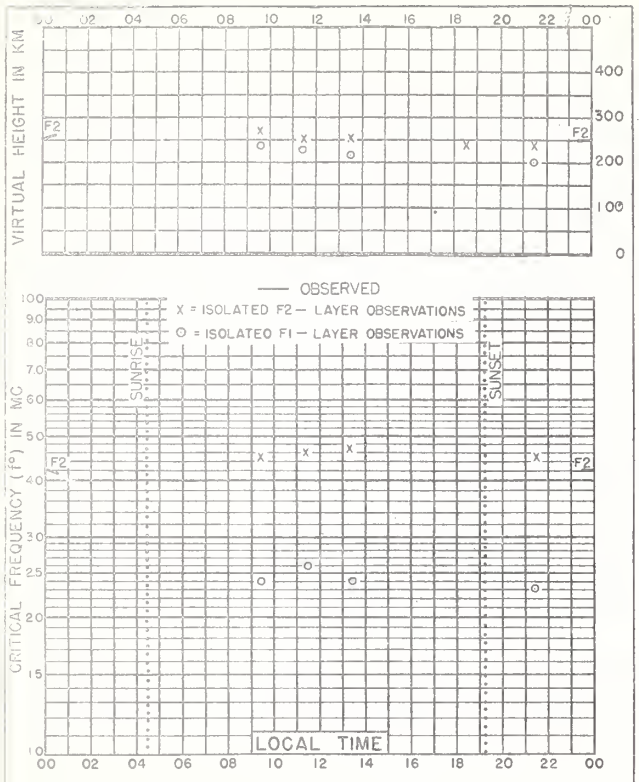


Fig.87. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E SEPTEMBER, 1944

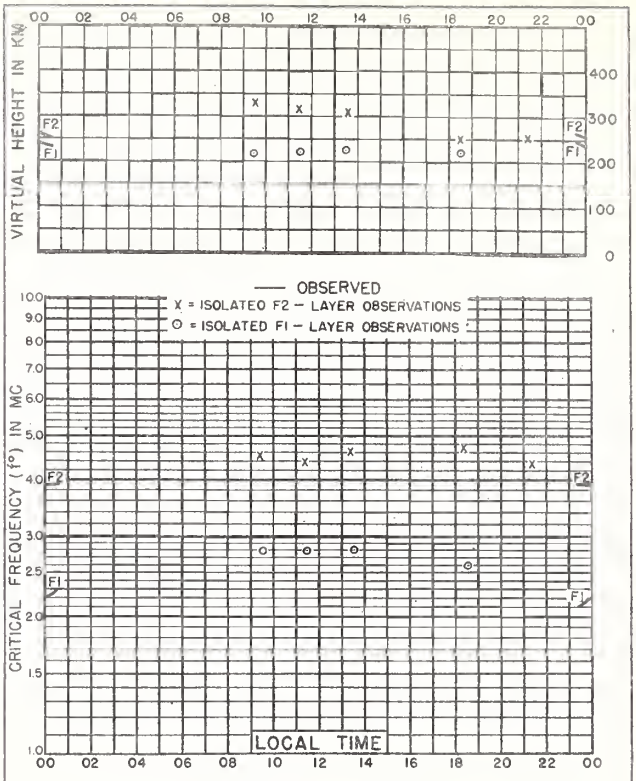


Fig.88 BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E AUGUST, 1944

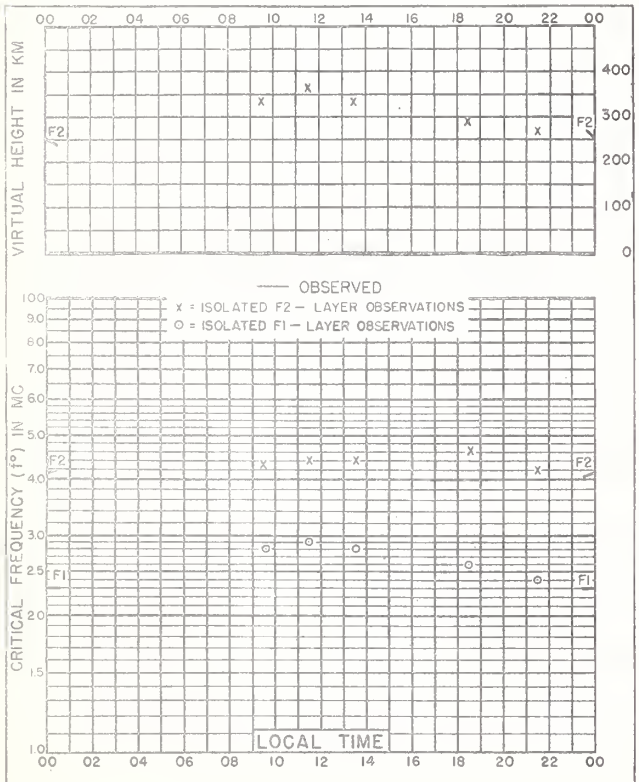


Fig. 89. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E JULY, 1944

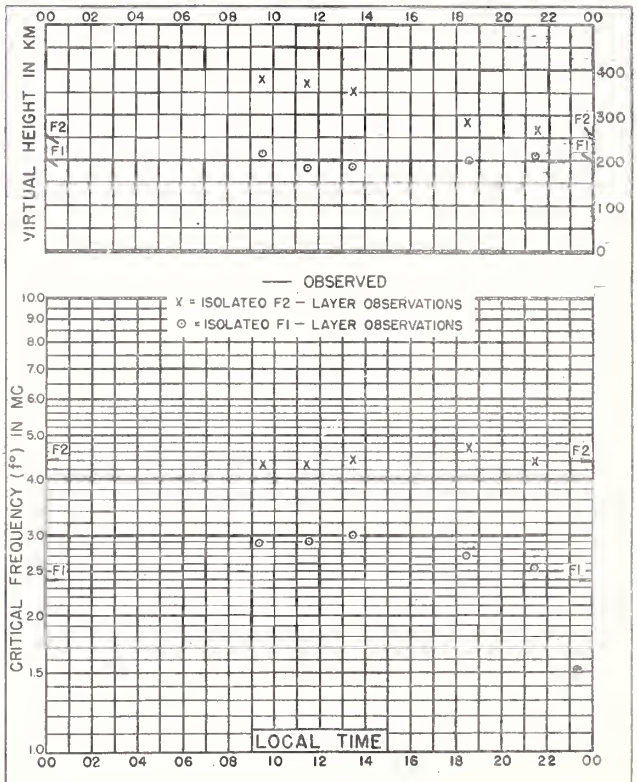


Fig. 90. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.8°E JUNE, 1944

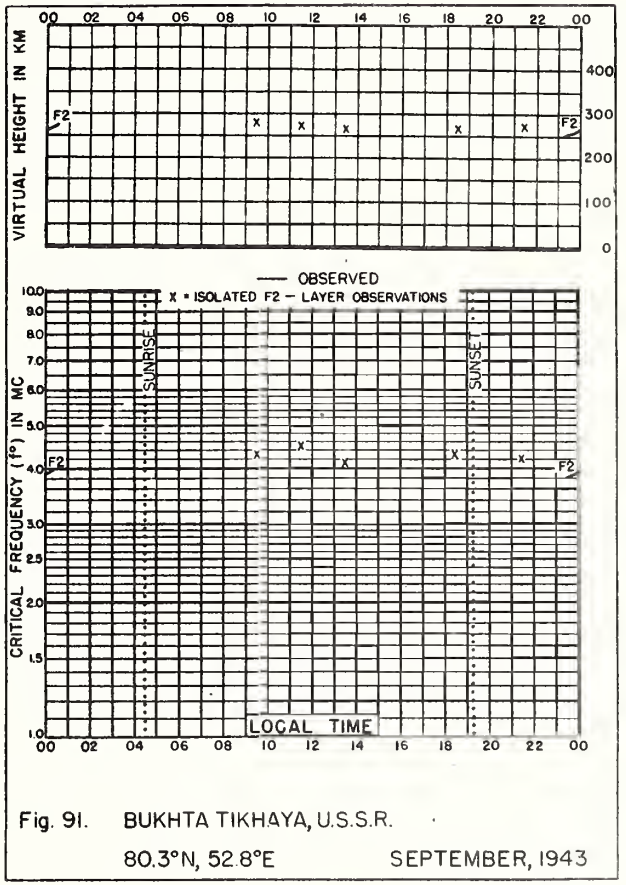


Fig. 91. BUKHTA TIKHAYA, U.S.S.R.

80.3°N, 52.8°E SEPTEMBER, 1943

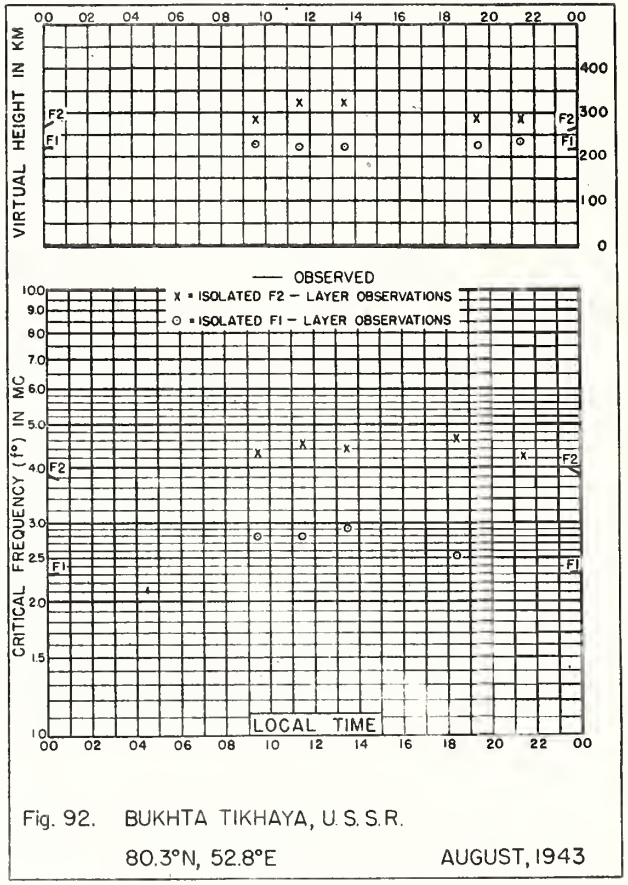


Fig. 92. BUKHTA TIKHAYA, U.S.S.R.

80.3°N, 52.8°E AUGUST, 1943

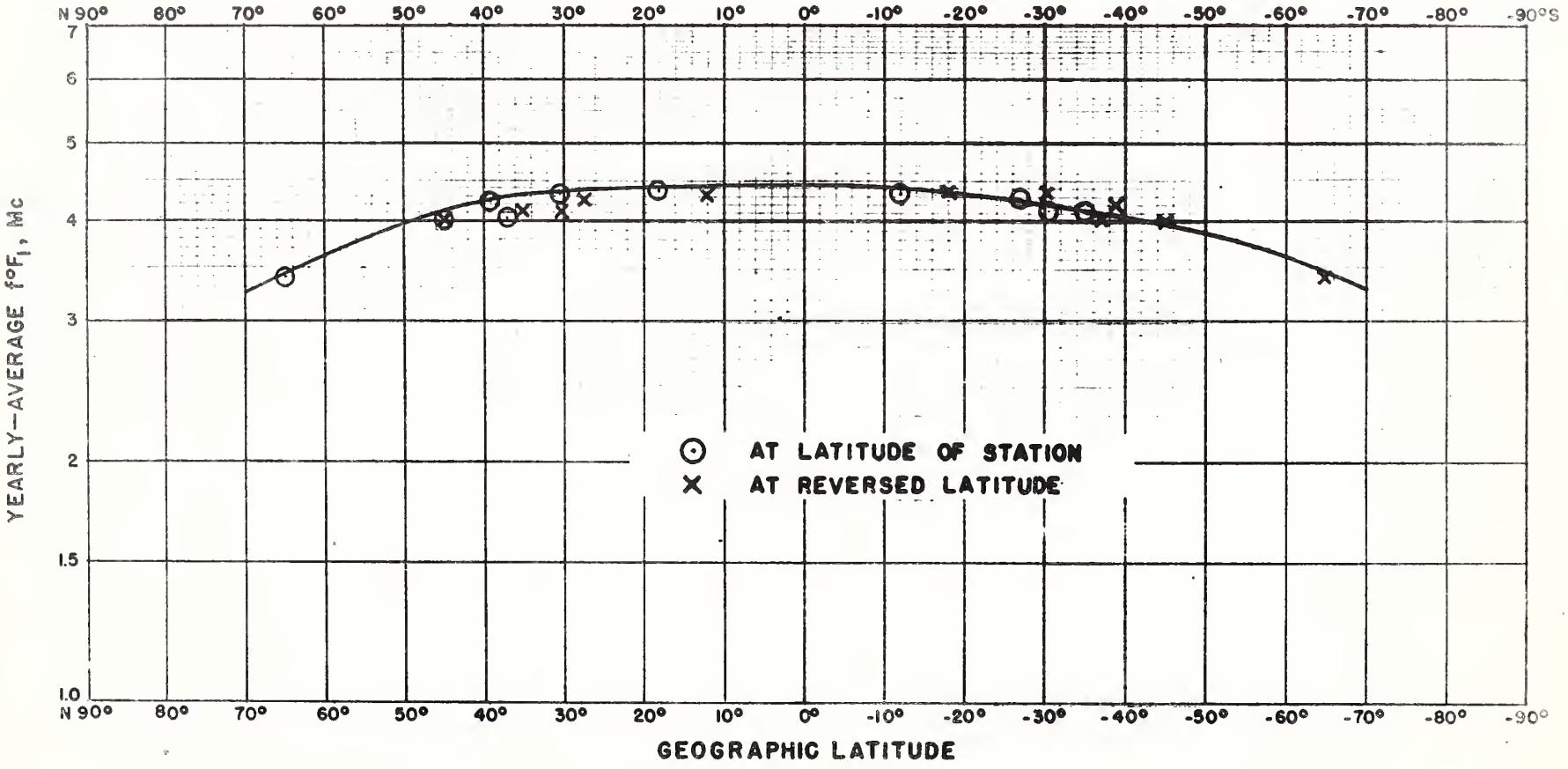


Fig. 93. VARIATION OF $f^{\circ}F_1$, AT SUNSPOT NUMBER=0, WITH LATITUDE, 1200 LOCAL TIME.

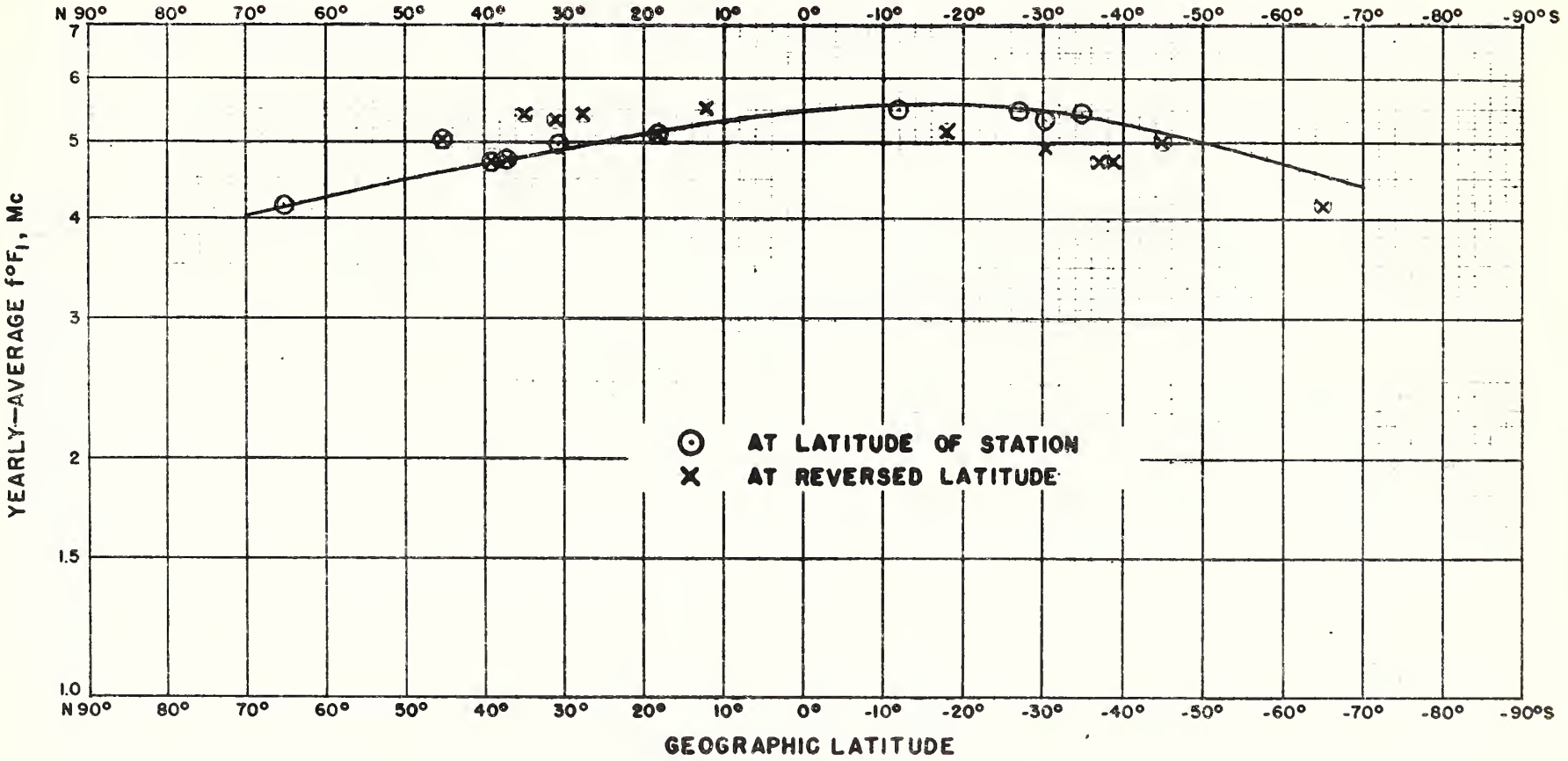


Fig. 94. VARIATION OF $f^{\circ}F_1$, AT SUNSPOT NUMBER = 100, WITH LATITUDE, 1200 LOCAL TIME.

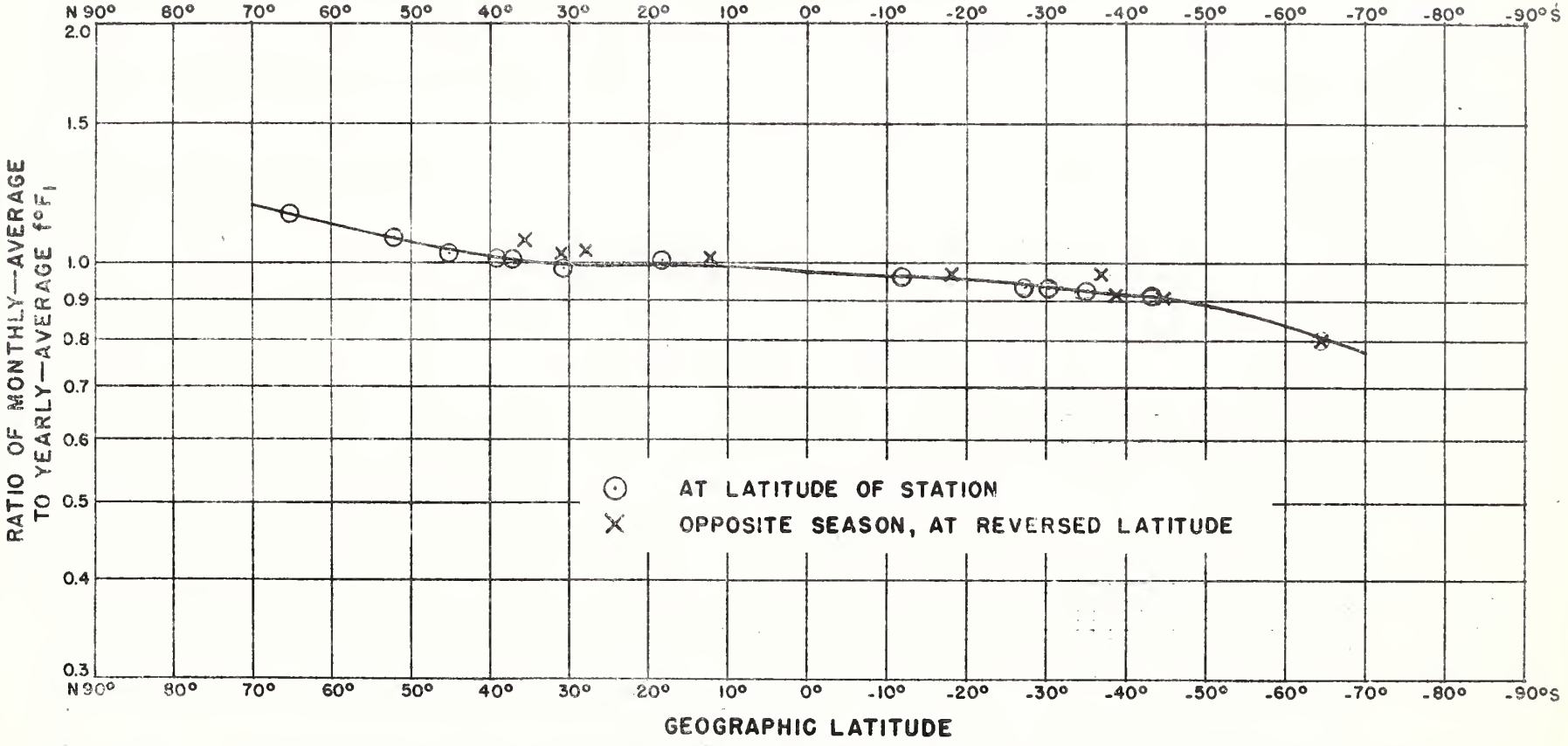


Fig. 95 VARIATION OF RATIO OF MONTHLY—AVERAGE TO YEARLY—AVERAGE $f°F_1$, WITH LATITUDE, 1200 LOCAL TIME, JUNE.

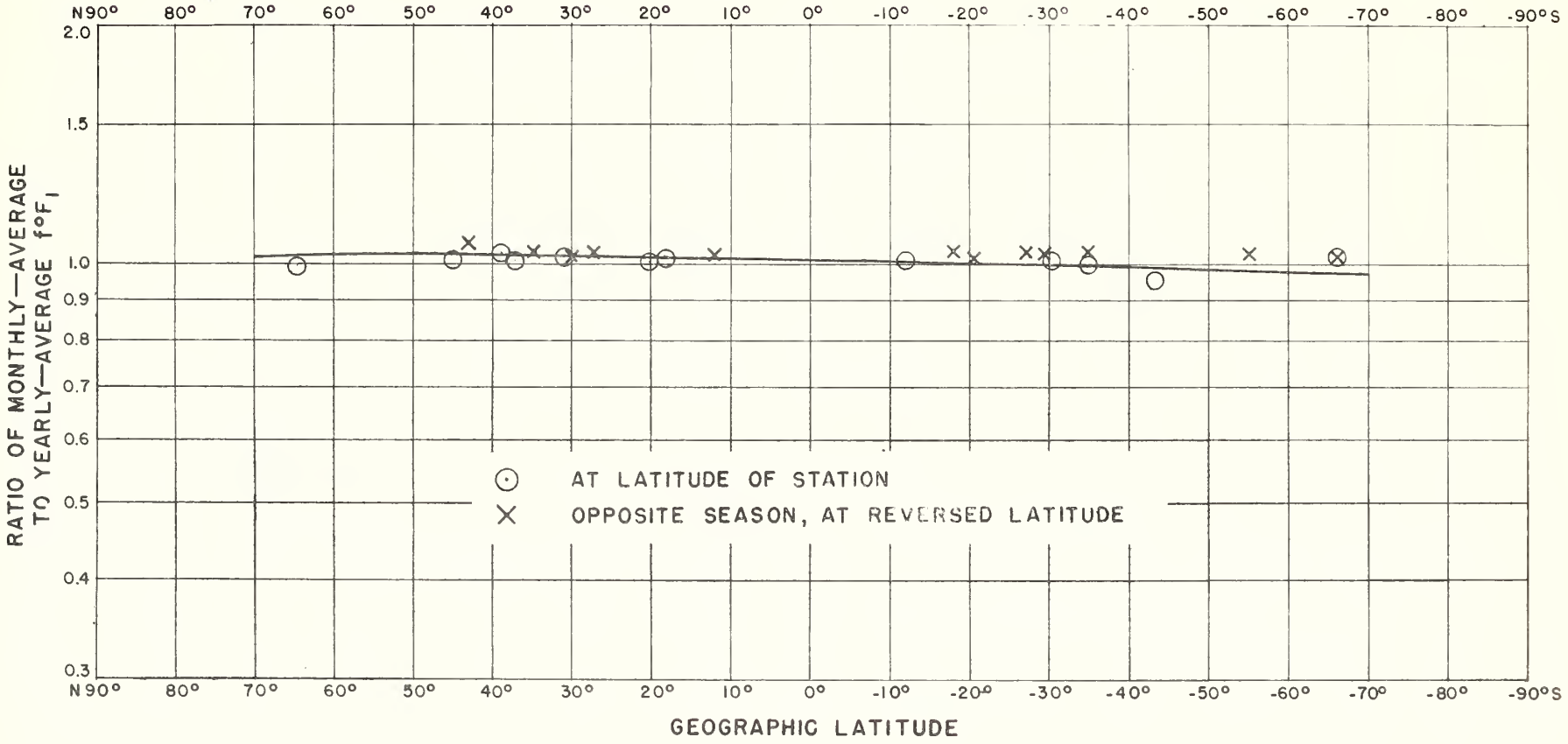


Fig. 96. VARIATION OF RATIO OF MONTHLY—AVERAGE TO YEARLY—AVERAGE $f^{\circ}F_1$, WITH LATITUDE, 1200 LOCAL TIME, SEPTEMBER.

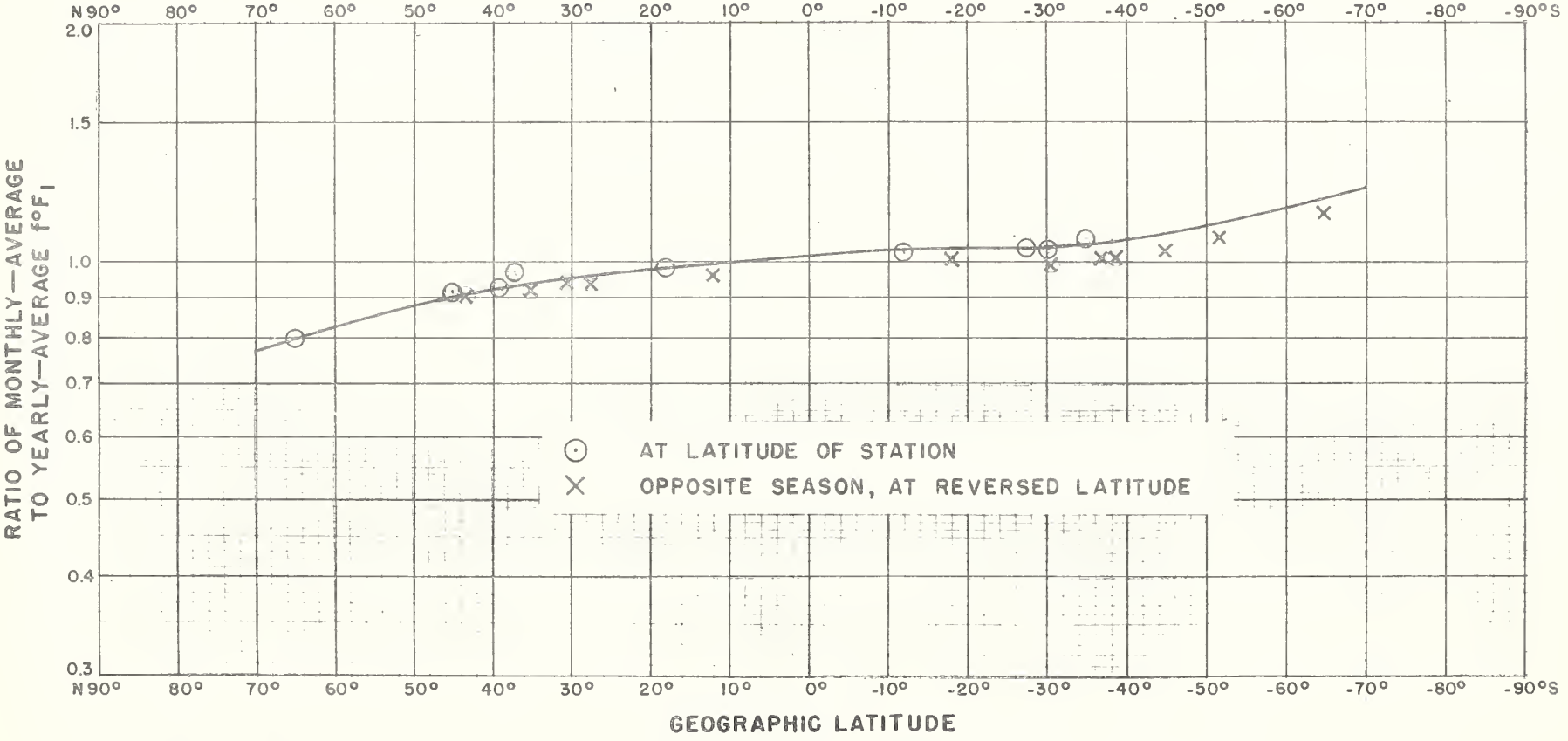


Fig. 97. VARIATION OF RATIO OF MONTHLY—AVERAGE TO YEARLY—AVERAGE $f^{\circ}F_1$, WITH LATITUDE, 1200 LOCAL TIME, DECEMBER.

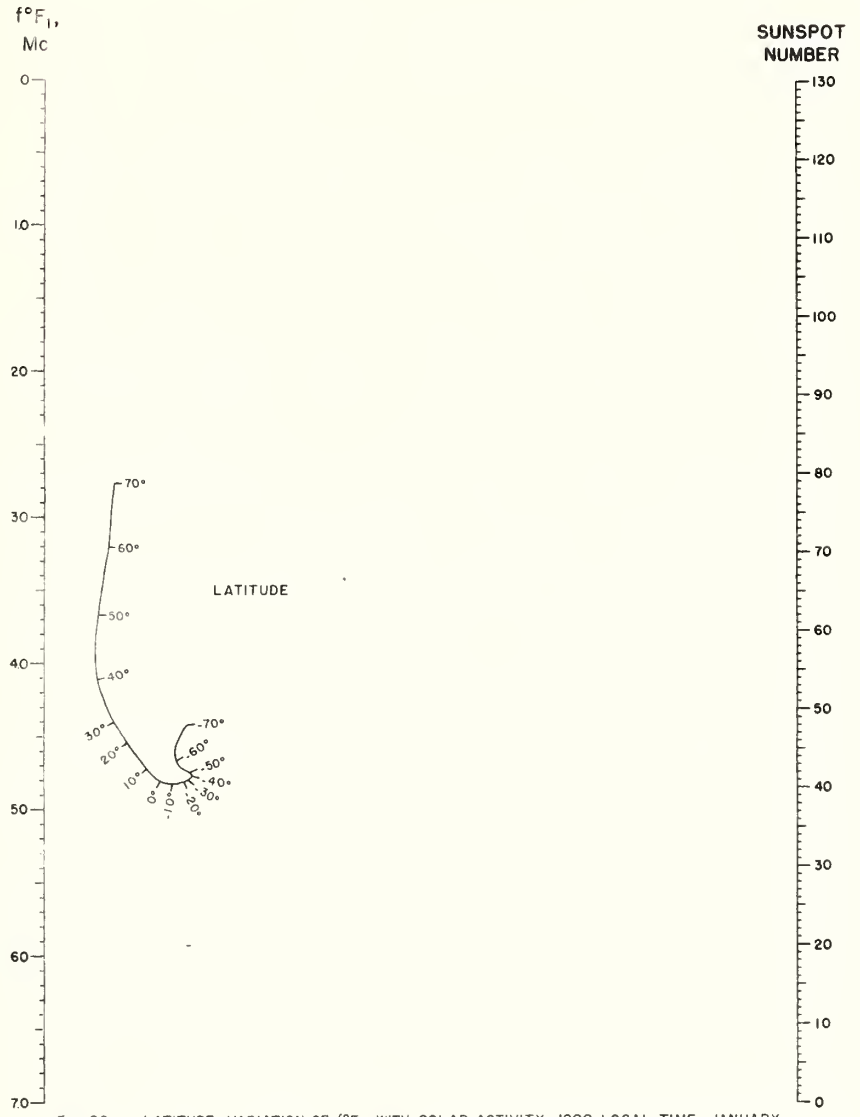


Fig. 98 LATITUDE VARIATION OF f°F1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, JANUARY.

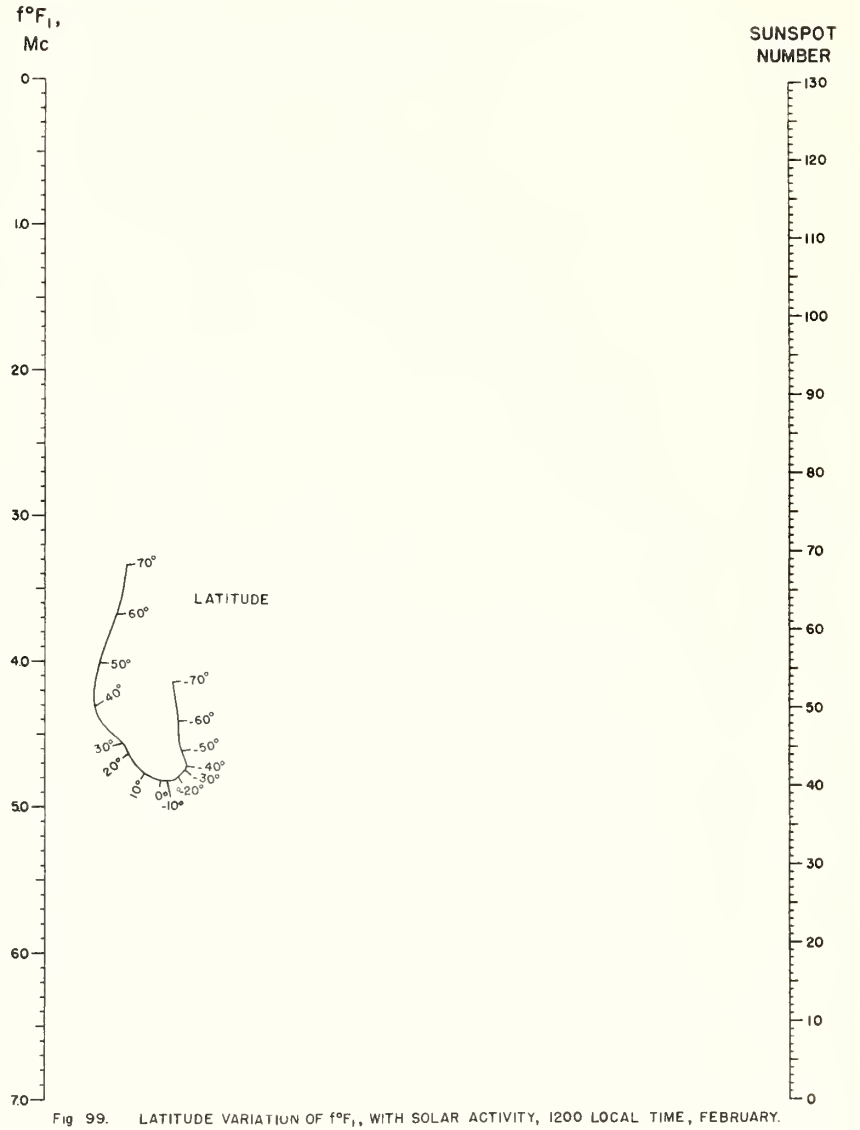


Fig 99. LATITUDE VARIATION OF f°F1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, FEBRUARY.

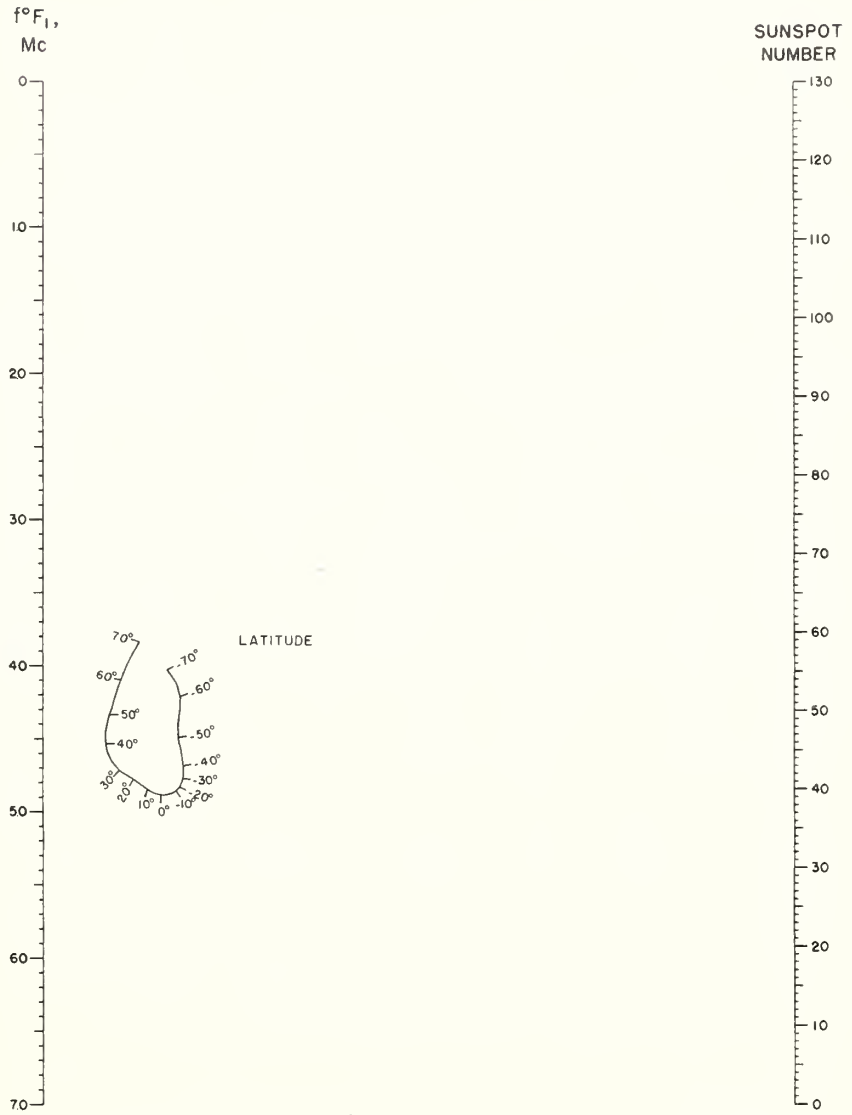


Fig. 100. LATITUDE VARIATION OF f°F_1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, MARCH.

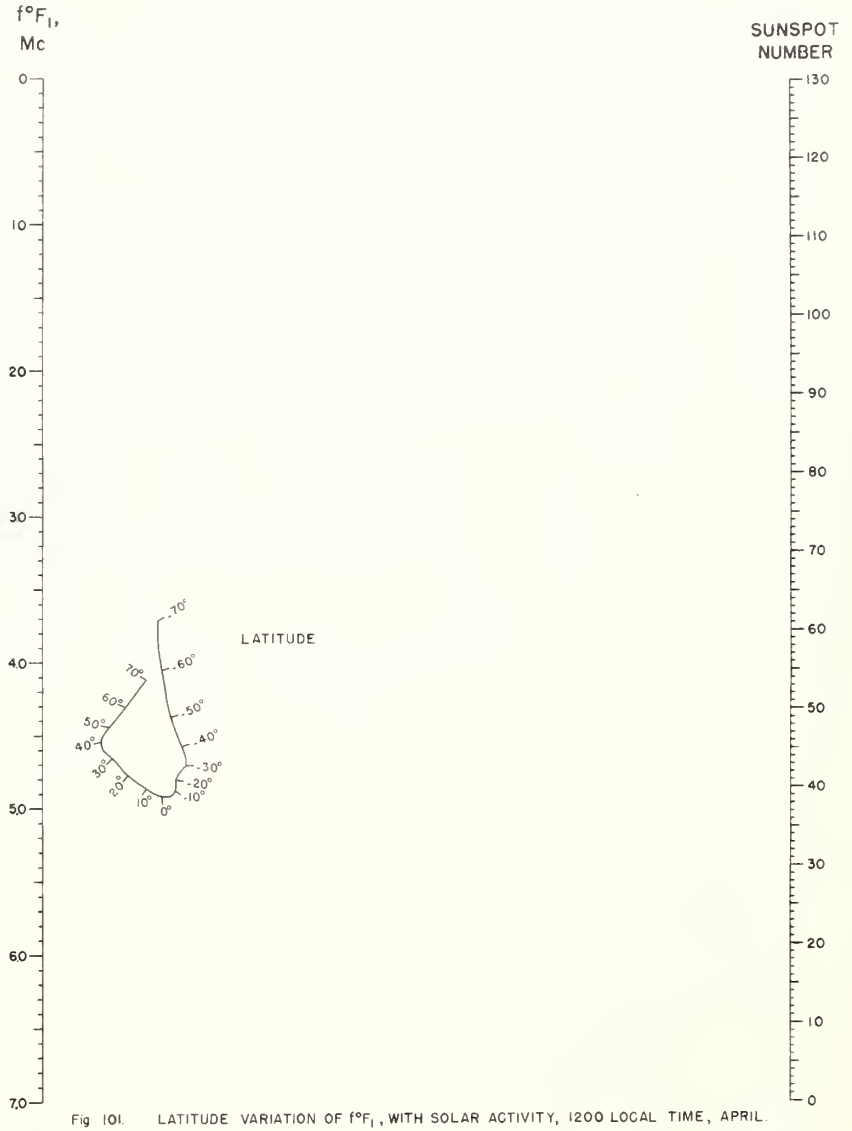


Fig. 101. LATITUDE VARIATION OF f°F_1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, APRIL.

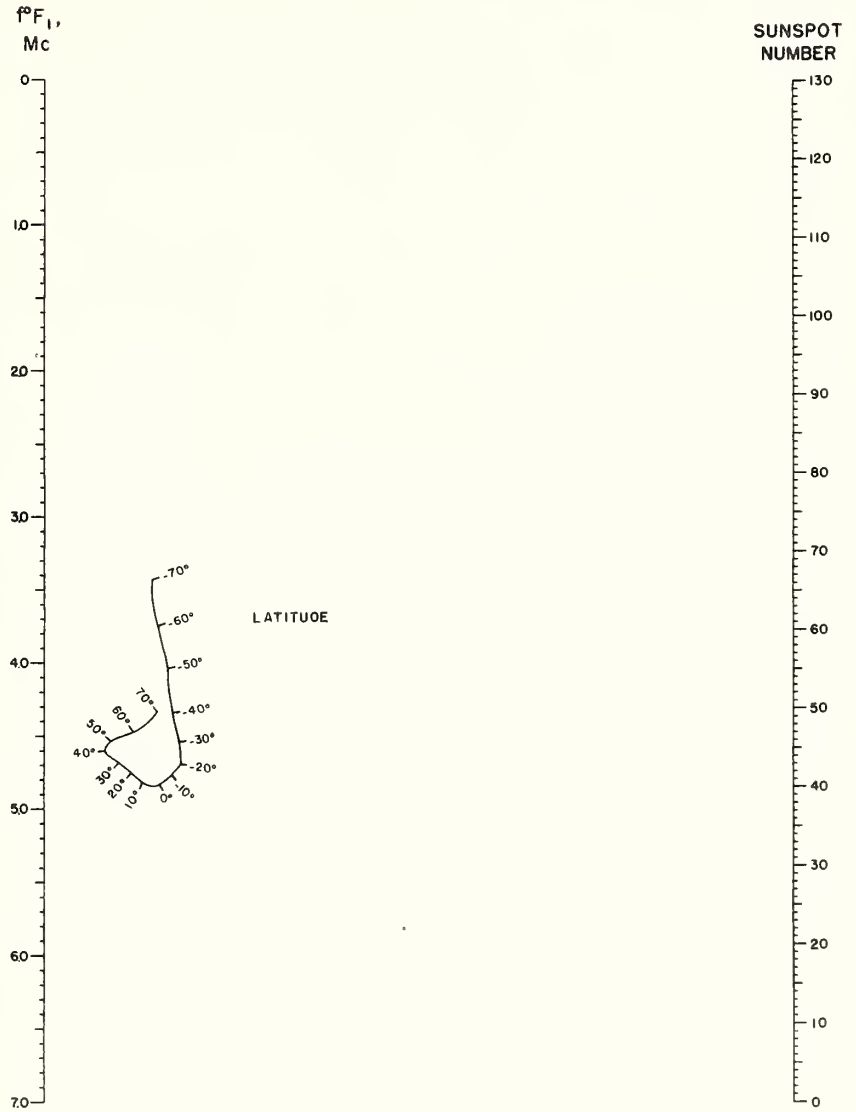


Fig 102. LATITUOE VARIATION OF f°F_1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, MAY.

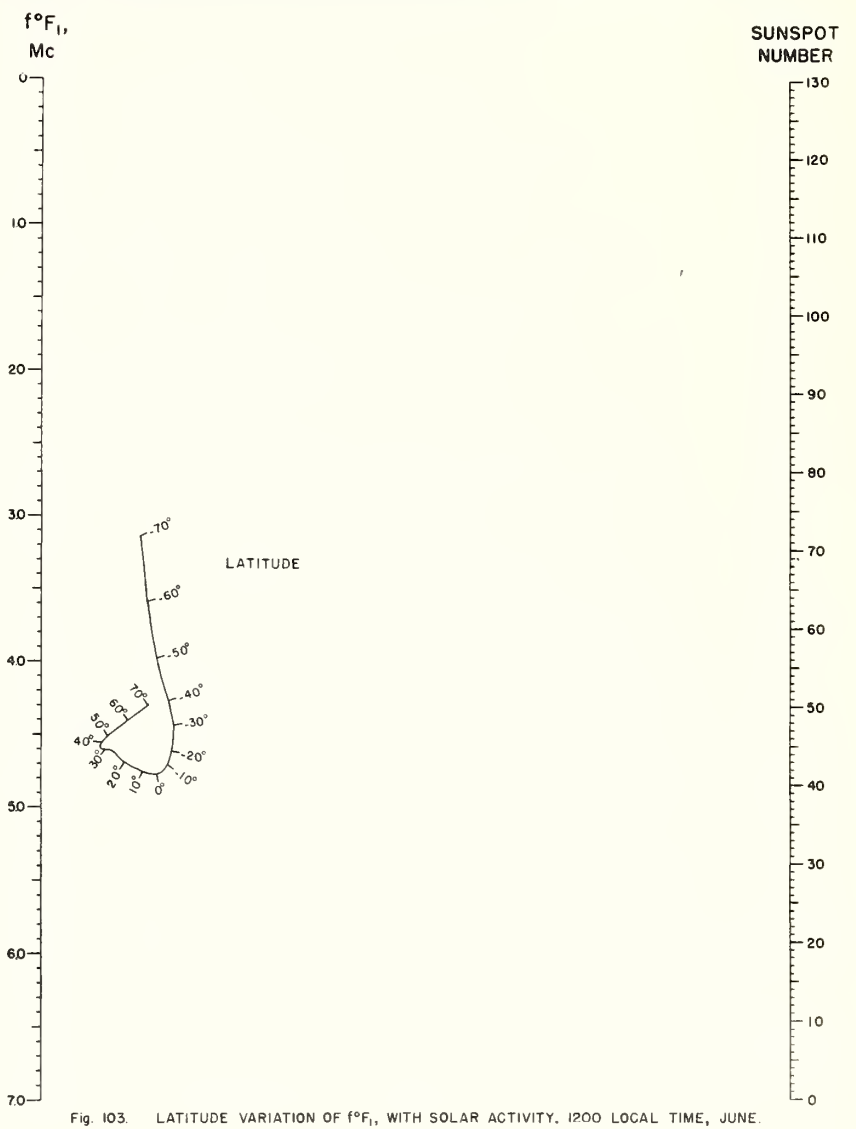


Fig. 103. LATITUDE VARIATION OF f°F_1, WITH SOLAR ACTIVITY. 1200 LOCAL TIME, JUNE.

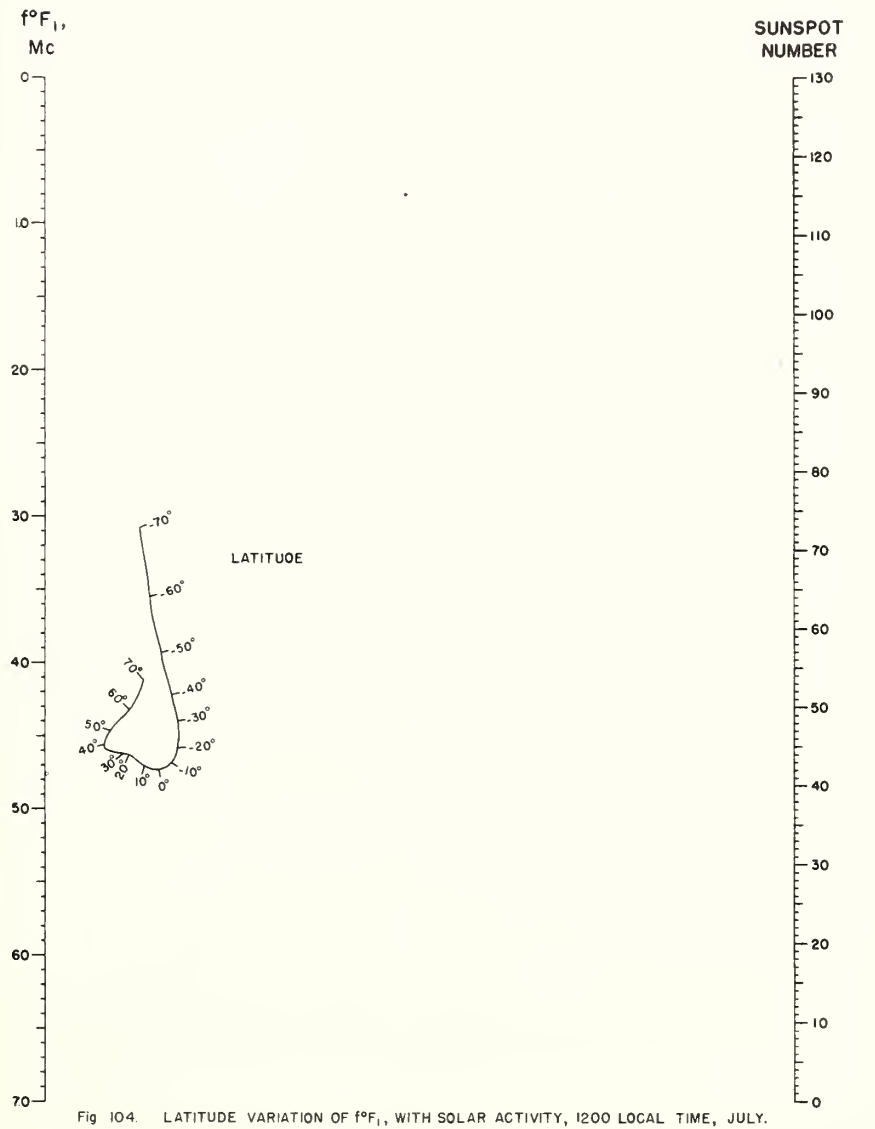


Fig 104. LATITUDE VARIATION OF f°F_1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, JULY.

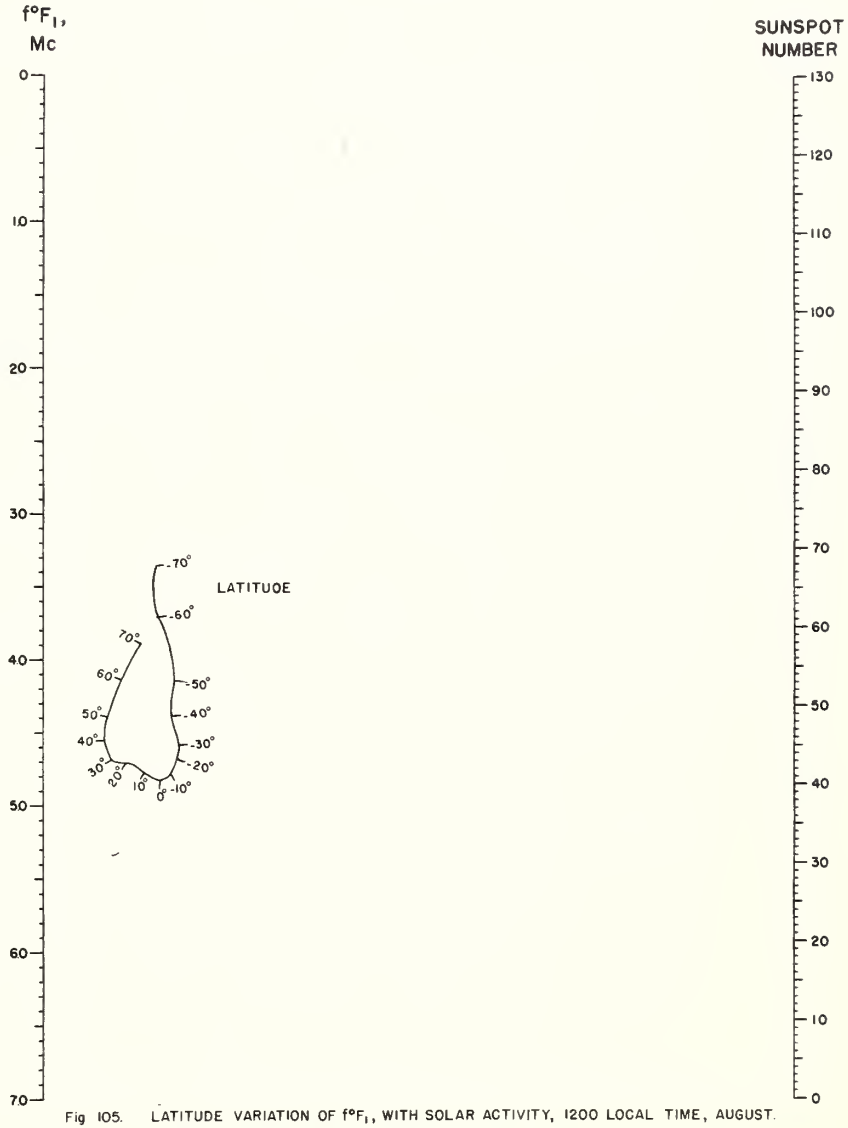


Fig 105. LATITUDE VARIATION OF f°F_1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, AUGUST.

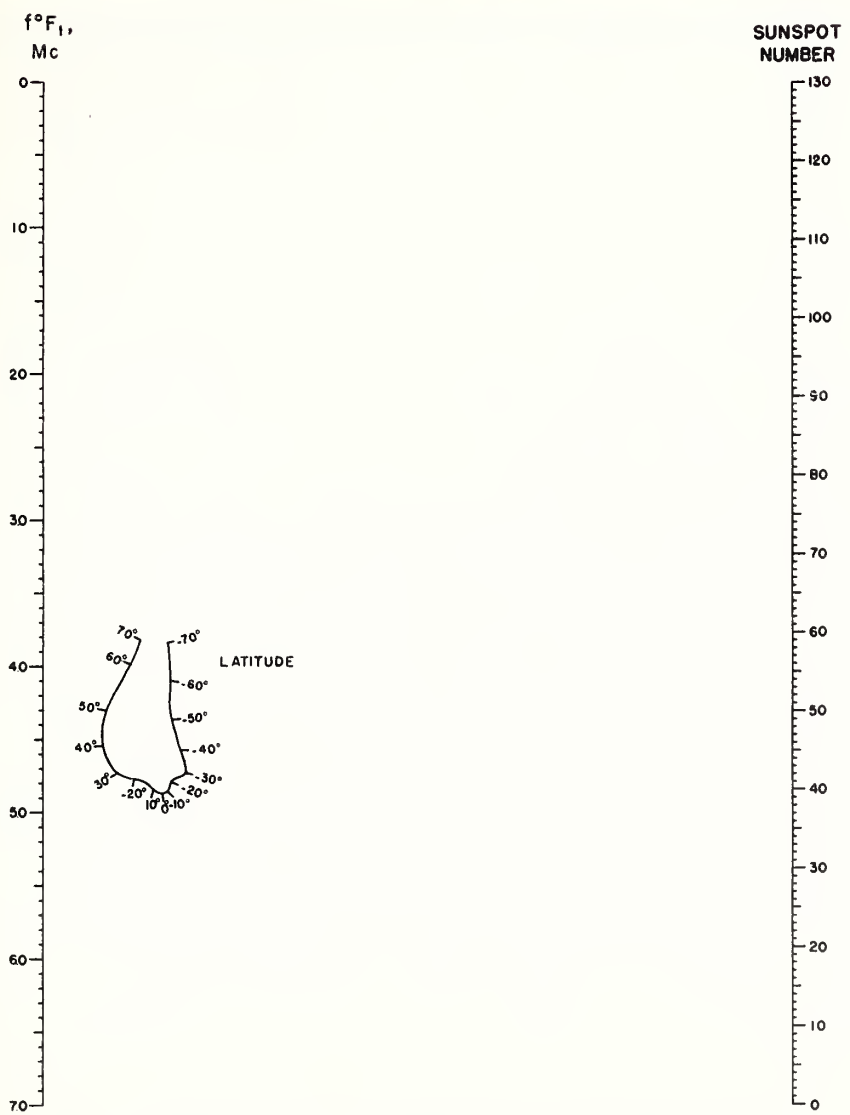


Fig. 106. LATITUDE VARIATION OF f°F1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, SEPTEMBER.

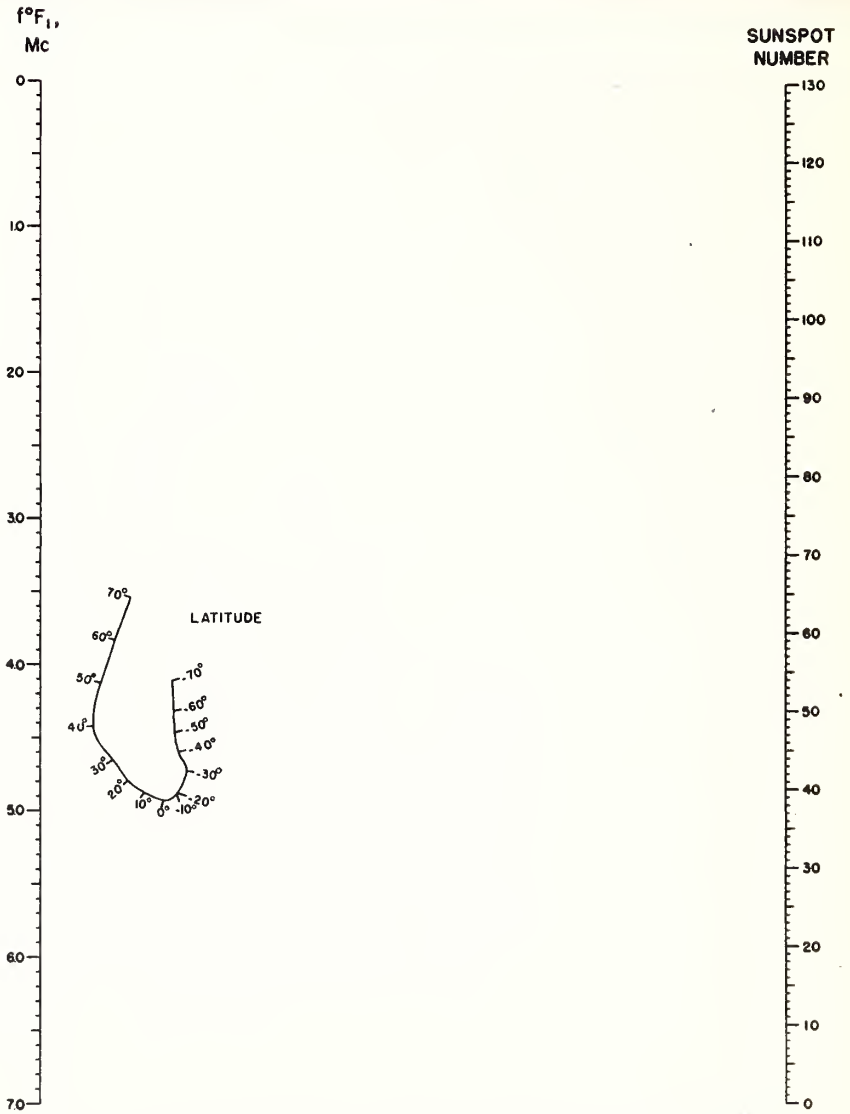


Fig. 107. LATITUDE VARIATION OF f°F1, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, OCTOBER.

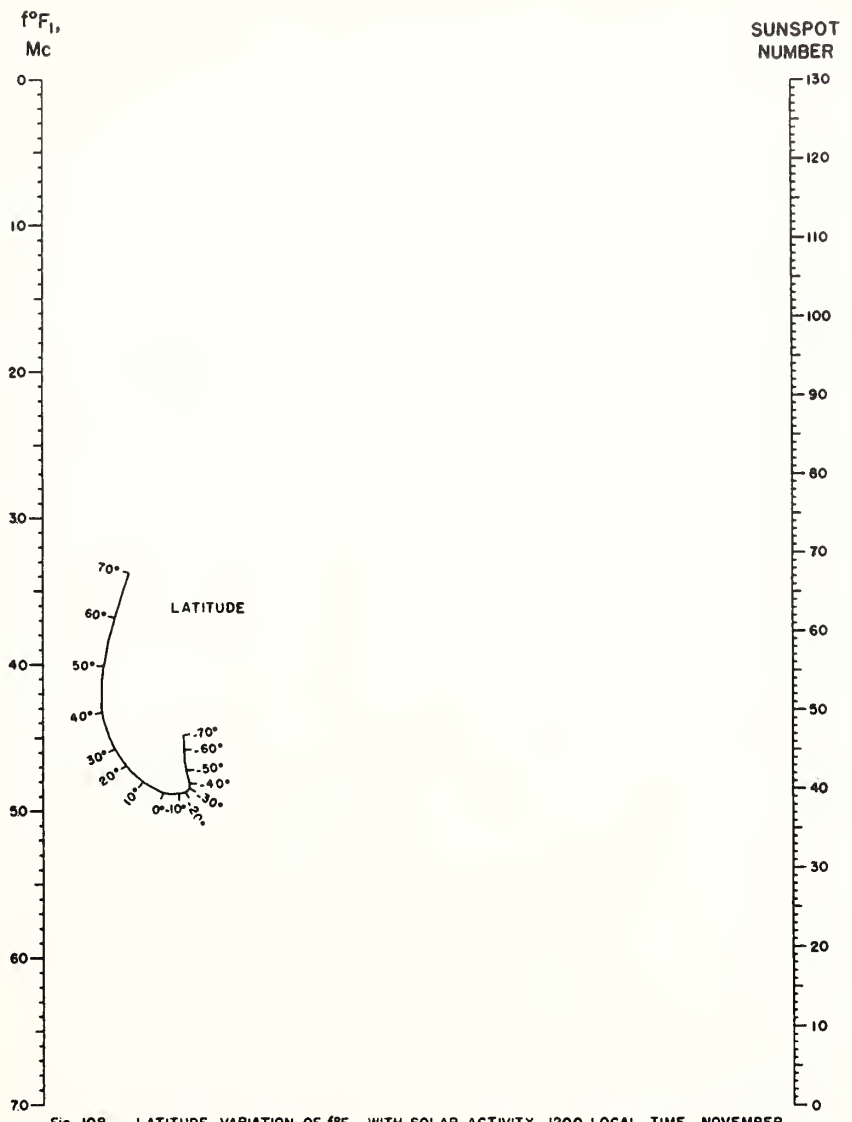


Fig. 108. LATITUDE VARIATION OF $f^{\circ}F_1$, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, NOVEMBER.

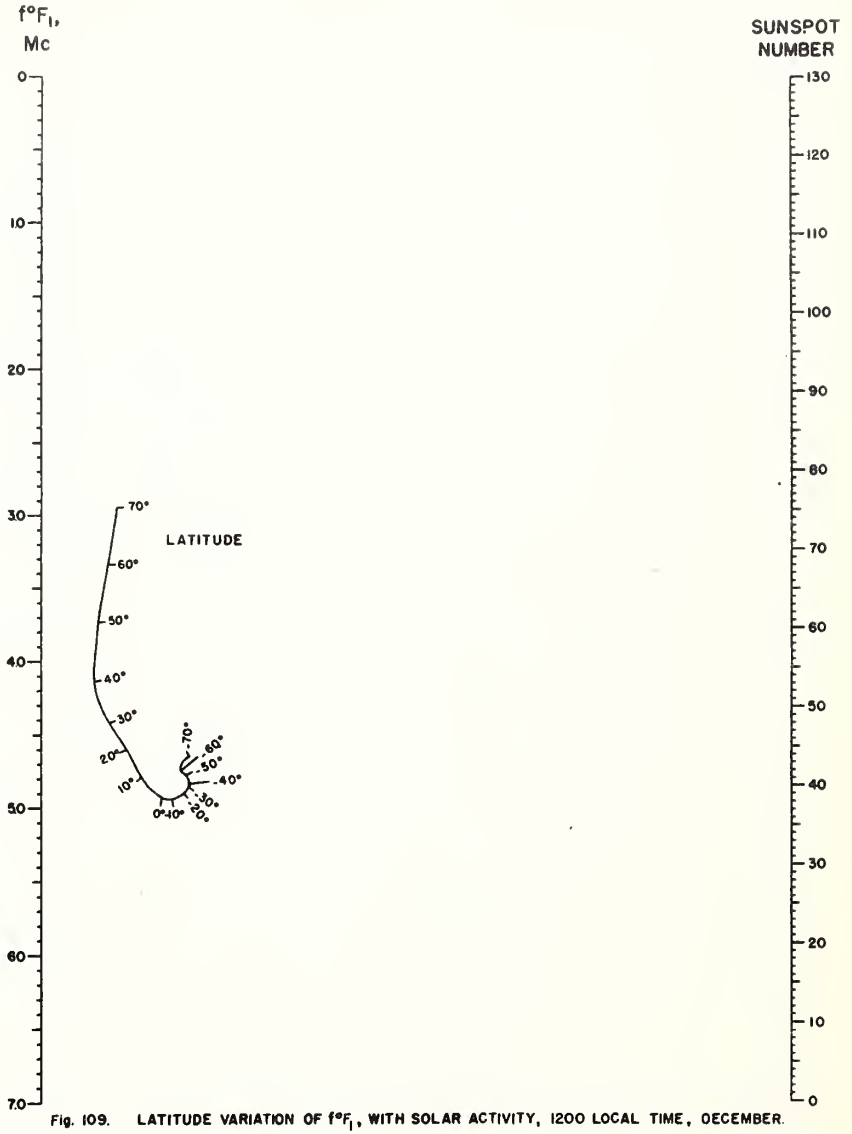


Fig. 109. LATITUDE VARIATION OF $f^{\circ}F_1$, WITH SOLAR ACTIVITY, 1200 LOCAL TIME, DECEMBER.

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